Canon

CDI-E190-010

PRINTED IN CHINA

Canon DIGITAL CAMERA PowerShot A620/A610 Advanced Camera User Guide

ENGLISH

CDI-E190

Canon PowerShot A620 PowerShot A610

DIGITAL CAMERA



- Before Using the Camera
- Shooting
- Playback/Erasing
- Print/Transfer Settings
- Viewing Images on a TV set
- Customizing the Camera
- Troubleshooting
- List of Messages
- Appendix

Advanced Camera User Guide

This guide explains camera features and procedures in detail.

DIGIC II PictBridge DIRECT PRINT BUBBLE JET DIRECT Exif Print DPOF CERTIFIED HI-SPEED USB

Main Features

Shooting

- Automatically adjusts shooting settings to match particular conditions
- Automatically detects camera orientation with an Intelligent Orientation sensor
- Changes image colors to create special effects (My Colors modes)
- Attaches the separately sold wide converter or tele-converter lens to shoot



Playback

- Plays movies with sound
- Plays back automatically using the Auto Play function

Editing

- Records sound memos for still images
- Edits movies

Printing

- Makes printing easy with the Print/Share button
- Also supports non-Canon brand *PictBridge* compliant printers

Uses of Recorded Images

- Effortlessly transfer them to a computer with the Print/Share button
- Freely customize the start-up image or start-up sound using the My Camera settings

Conventions Used in this Guide

Icons appearing below titles indicate the modes in which the procedure can be used.

Using the Self-Timer

Shooting Mode AUTO SCN P Tv Av M

See *Functions Available in Each Shooting Mode* (p. 136).

- In this guide, the *Basic Camera User Guide* is referred to as the *Basic Guide*, and the *Advanced Camera User Guide* is referred to as the *Advanced Guide*.

This mark denotes issues that may affect the camera's operation.

This mark denotes additional topics that complement the basic operating procedures.

You can use SD* memory cards and MultiMediaCards with this camera. These cards are collectively called memory cards in this guide.

* SD stands for Secure Digital, a copyright protection system.

Use of genuine Canon accessories is recommended.

This product is designed to achieve excellent performance when used with genuine Canon accessories. Canon shall not be liable for any damage to this product and/or accidents such as fire, etc., caused by the malfunction of non-genuine Canon accessories (e.g., a leakage and/or explosion of a battery pack). Please note that this warranty does not apply to repairs arising out of the malfunction of non-genuine Canon accessories, although you may request such repairs on a chargeable basis.

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Handling Precautions

Please Read

Test Shots

Before you try to photograph important subjects, we highly recommend that you shoot several trial images to confirm that the camera is operating and being operated correctly.
Please note that Canon Inc., its subsidiaries and affiliates, and its distributors are not liable for any consequential damages arising from any malfunction of a camera or accessory, including memory cards, that results in the failure of an image to be recorded or to be recorded in a way that is machine readable.

Warning Against Copyright Infringement

Please note that Canon digital cameras are intended for personal use and should never be used in a manner that infringes upon or contravenes international or domestic copyright laws and regulations. Please be advised that in certain cases the copying of images from performances, exhibitions, or commercial properties by means of a camera or other device may contravene copyright or other legal rights even if the image was shot for personal use.

Warranty Limitations

This camera's warranty is only effective in the country of sale. If a problem arises while the camera is in use abroad, please convey it back to the country of sale before proceeding with a warranty claim to a Canon Customer Support Help Desk.
For Canon Customer Support contacts, please see the Canon Limited Warranty supplied with your camera.

Camera Body Temperature

If your camera is used for prolonged periods, the camera body may become warm. Please be aware of this and take care when operating the camera for an extended period.

About the LCD Monitor

The LCD monitor is produced with extremely high-precision manufacturing techniques. More than 99.99% of the pixels operate to specification. Less than 0.01% of the pixels may occasionally misfire or appear as red or black dots. This has no effect on the recorded image and does not constitute a malfunction.

Video Format

Please set the camera’s video signal format to the one used in your region before using it with a TV monitor (p. 89).

Language Setting

Please see the *Basic Guide* (p. 4) to change the language setting.

Safety Precautions

- Before using the camera, please ensure that you read the safety precautions described below and in the “Safety Precautions” section of the *Basic Camera User Guide*. Always ensure that the camera is operated correctly.
- The safety precautions noted on the following pages are intended to instruct you in the safe and correct operation of the camera and its accessories to prevent injuries or damage to yourself, other persons and equipment.
- Equipment refers to the camera, battery, battery charger (sold separately) and compact power adapter (sold separately).

⚠ Warnings

Equipment

- **Do not aim the camera directly into the sun or at other intense light sources that could damage your eyesight.**

- **Store this equipment out of the reach of children and infants. Accidental damage by a child could result in serious injury.**

• Wrist strap: Placement of the strap around the child's neck could result in asphyxiation.
• Memory card: It may be swallowed accidentally. If this occurs, contact a doctor immediately.

- **Do not attempt to disassemble or alter any part of the equipment that is not expressly described in this guide.**
- **To avoid the risk of high-voltage electrical shock, do not touch the flash portion of the camera if it has been damaged.**
- **Stop operating the equipment immediately if it emits smoke or noxious fumes.**
- **Do not allow the equipment to come into contact with, or become immersed in, water or other liquids. If the exterior comes into contact with liquids or salt air, wipe it dry with a soft, absorbent cloth.**

Continued use of the equipment may result in fire or electrical shock. Immediately turn the camera power off and remove the camera batteries or unplug the power code from the power outlet. Please consult your camera distributor or the closest Canon Customer Support Help Desk.

- **Do not use substances containing alcohol, benzene, thinners or other flammable substances to clean or maintain the equipment.**
- **Do not cut, damage, alter or place heavy items on the power cord.**
- **Use only recommended power accessories.**
- **Remove the power cord on a regular periodic basis and wipe away the dust and dirt that collects on the plug, the exterior of the power outlet and the surrounding area.**
- **Do not handle the power cord if your hands are wet.**

Continued use of the equipment may result in fire or electrical shock.

Battery

- **Do not place the batteries near a heat source or expose it to direct flame or heat.**
- **The batteries should not be immersed in water or sea water.**
- **Do not attempt to disassemble, alter or apply heat to the batteries.**
- **Avoid dropping or subjecting the batteries to severe impacts that could damage the casing.**
- **Use only recommended batteries and accessories.**

Use of batteries not expressly recommended for this equipment may cause explosions or leaks, resulting in fire, injury and damage to the surroundings. In the event that a battery leaks and the eyes, mouth, skin or clothing contact these substances, immediately flush with water and seek medical assistance.

- **Disconnect the battery charger and compact power adapter from both the camera and the power outlet after recharging or when not in use to avoid fire and other hazards.**
- **Do not place anything, such as tablecloths, carpets, bedding or cushions, on top of the battery charger while it is charging.**

Continued use over a long period may cause the units to overheat and distort, resulting in fire.

- **When recharging the Canon AA-size NiMH batteries, use only a specified battery charger.**
- **The compact power adapter is designed for exclusive use with this camera. Do not use it with other products.**

There is a risk of overheating and distortion which could result in fire or electrical shock.

- **Before you discard a battery, cover the terminals with tape or other insulators to prevent direct contact with other objects.**

Contact with the metallic components of other materials in waste containers may lead to fire or explosions.

Others

- **Do not trigger the flash in close proximity to human or animal eyes. Exposure to the intense light produced by the flash may damage eyesight.**

In particular, remain at least one meter (39 inches) away from infants when using the flash.

- **Keep objects that are sensitive to magnetic fields (such as credit cards) away from the speaker of the camera.**

Such items may lose data or stop working.

- **Exercise due caution when screwing on the separately sold wide converter, tele-converter and conversion lens adapter.**

If they loosen, fall off and shatter, the glass shards may cause injury.

⚠ Cautions

Equipment

- **Be careful not to bang the camera or subject it to strong impacts or shocks that could lead to injury or damage the equipment when wearing or holding it by the strap.**

- **Do not store the equipment in humid or dusty areas.**
- **Do not allow metal objects (such as pins or keys) or dirt to contact the charger terminals or plug.**

Such conditions could lead to fire, electrical shock or other damage.

- **Avoid using, placing or storing the equipment in places subject to strong sunlight or high temperatures, such as the dashboard or trunk (boot) of a car.**
- **Ensure that the battery charger or the compact power adapter is plugged into a power outlet of the specified rating, not over the specified rating. Do not use if the power cord or plug is damaged, or if not fully plugged into the outlet.**
- **Do not use in locations with poor ventilation.**

The above-mentioned can cause leakage, overheating or explosion, resulting in fire, burns or other injuries. High temperatures may also cause deformation of the casing.

Equipment

- **When not using the camera for extended periods of time, remove the batteries from the camera or battery charger and store the equipment in a safe place.**

If the batteries are left inside the camera, damage caused by leakage may occur.

Flash

- **Do not operate the flash with dirt, dust or other items stuck to the surface of the flash.**
- **Be careful not to cover the flash with your fingers or clothing when shooting.**

The flash may be damaged and emit smoke or noise. The resulting heat build-up could damage the flash.

- **Do not touch the surface of the flash after taking several pictures in rapid succession.**

Doing so could result in burns.

Preventing Malfunctions

Avoid Strong Magnetic Fields

- **Never place the camera in close proximity to electric motors or other equipment generating strong electromagnetic fields.**

Exposure to strong magnetic fields may cause malfunctions or corrupt image data.

Avoid Condensation Related Problems

- **When moving the equipment rapidly between hot and cold temperatures, you can avoid condensation by placing the equipment in an airtight, resealable plastic bag and letting it adjust to temperature changes slowly before removing it from the bag.**

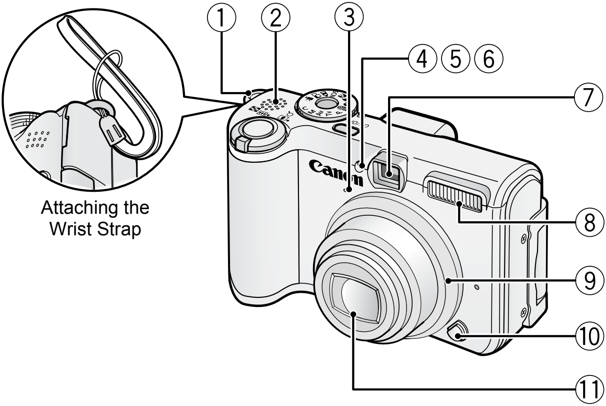
Moving the equipment rapidly between hot and cold temperatures may cause condensation (water droplets) to form on its external and internal surfaces.

If Condensation Forms Inside the Camera

- **Stop using the camera immediately.**

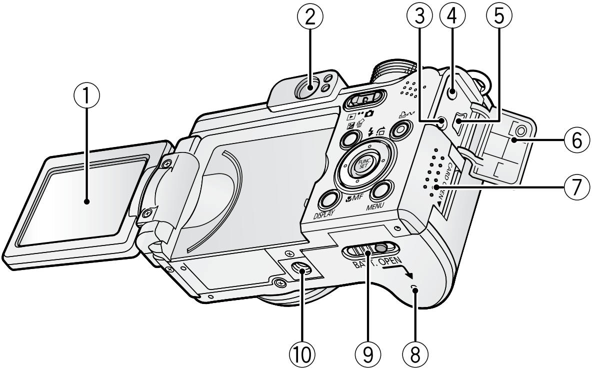
Continued use may damage the equipment. Remove the memory card and batteries or compact power adapter from the camera and wait until the moisture evaporates completely before resuming use.

Front View



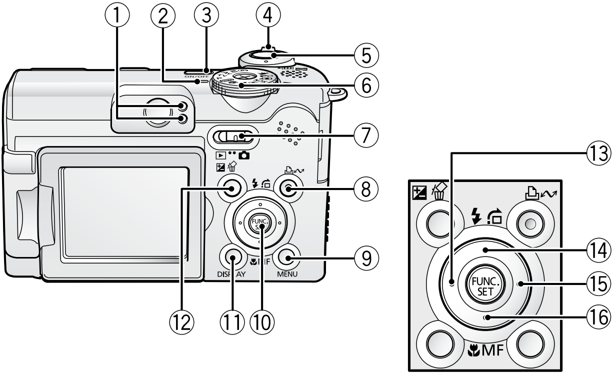
① Wrist Strap Mount
② Speaker
③ Microphone (p. 79)
④ AF-assist Beam (p. 24)
⑤ Red-Eye Reduction Lamp (*Basic Guide* p. 9)
⑥ Self-Timer Lamp (p. 35)
⑦ Viewfinder Window (p. 19)
⑧ Flash (*Basic Guide* p. 9)
⑨ Ring
⑩ Ring Release Button
⑪ Lens

Back View



①LCD Monitor (p. 15, *Basic Guide* p. 3)
②Viewfinder (p. 19)
③A/V OUT (Audio/Video output) Terminal (p. 89)
④DC IN Terminal (p. 111)
⑤DIGITAL Terminal (*Basic Guide* p. 19)
⑥Terminal Cover
⑦Memory Card Slot Cover (*Basic Guide* p. 1)
⑧Battery Cover (*Basic Guide* p. 1)
⑨Battery Cover Lock (*Basic Guide* p. 1)
⑩Tripod Socket

Operation Panel



① Indicators (p. 20)
② Power Lamp
③ Power Button (*Basic Guide* p. 5)
④ Zoom Lever (p. 72, *Basic Guide* p. 8)
Shooting: (Wide Angle)/ (Telephoto)
Playback: (Index)/ (Magnify)
⑤ Shutter Button (*Basic Guide* p. 5)
⑥ Shooting Mode Dial (*Basic Guide* p. 6)
⑦ Mode Switch
⑧ (Print/Share) Button (*Basic Guide* p. 14)
⑨ **MENU** Button (p. 23)
⑩ **FUNC./SET** (Function/Set) Button (p. 22)
⑪ **DISPLAY** Button (p. 15)
⑫ (Exposure)/ (Single Image Erase) Button (p. 54, *Basic Guide* p. 11)
⑬ ← Button
⑭ (Flash)/ (Jump)/ ↑ Button (p. 74, *Basic Guide* p. 9)
⑮ → Button
⑯ (Macro)/ MF (Manual Focus)/ ↓ Button (p. 48, *Basic Guide* p. 10)

Using the LCD Monitor

1 **Press DISPLAY.**

- The display mode changes as follows with each press.

Shooting Mode ( )

Standard (No Information) → Detailed (Information View) → Off → (back to Standard)

Playback Mode ( )

Standard → Detailed → No Information → (back to Standard)

- In the shooting mode, the shooting information displays for approximately 6 sec. when a setting is changed, regardless of the selected display mode.

- The LCD monitor on or off setting is retained even after the camera power is turned off.
- The LCD monitor does not shut off in the , or mode.
- The LCD monitor will not switch to the detailed display in the index playback mode (p. 73).

Night Display

When shooting in dark conditions, the camera automatically brightens the LCD monitor to suit the brightness of the subject*, making it easier to frame the subject.

* Noise will appear, and the movements of the subject will appear irregular in the LCD monitor. The recorded image will not be affected. The brightness of the image displayed in the monitor, and the brightness of the actual image recorded will be different.

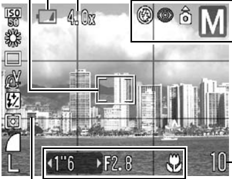
Information Displayed on the LCD Monitor

Shooting Information (Shooting Mode)

[ ]* Spot AE Point Frame (p. 53) | AF Frame (p. 45)

* Low Battery (p. 105)

Zoom Magnification* (p. 31)



Grid Lines* (p. 25)

Flash (*Basic Guide* p. 9)

Red-Eye Reduction (*Basic Guide* p. 9)

Auto Rotate (p. 70)

●(Red)* Movie Recording (p. 37)

Shooting Mode

(*Basic Guide* p. 6 – 8)

(p. 59) (p. 39)

* * * * (p. 37)

P Tv Av M C (p. 41 – 44, 69)

- Stills: Recordable Shots
- Movies (Sec.): Remaining Time/Elapsed Time

ISO Speed (p. 66)

White Balance (p. 55)

Shooting Method (p. 32, 35)

Photo Effect (p. 58)

My Colors (p. 59)

Flash Exposure Compensation/ Flash Output (p. 67)

Metering Mode (p. 52)

Compression (p. 30)

Frame Rate (Movies) (p. 30)

L M1 M2 M3 S

Resolution (p. 29, 30)

Shutter Speed* (p. 41)

Aperture Value* (p. 43)

-2 ··· +2 *

Exposure Compensation (p. 54)

* Macro (*Basic Guide* p. 10)

* Manual Focus (p. 48)

* AE Lock (p. 49)

* FE Lock (p. 51)

* AF Lock (p. 47)

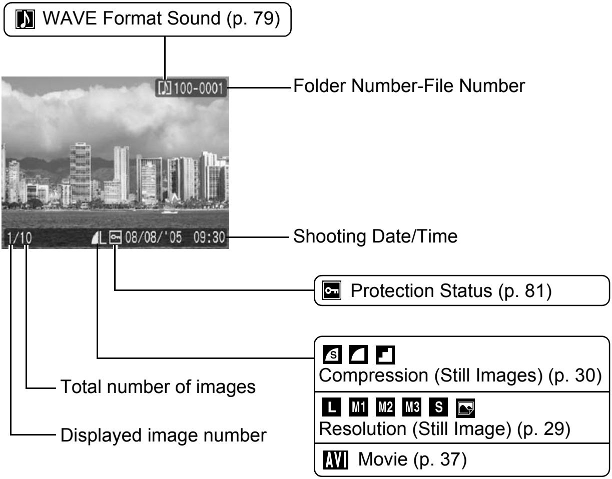
(Red)* Camera Shake Warning (p. 17)

* Appears even if the LCD monitor is set to Standard display.

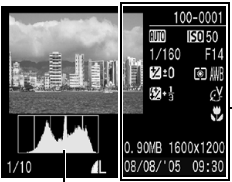
If the indicator blinks orange and the camera shake warning icon displays, this indicates that a slow shutter speed may have been selected due to insufficient illumination. Raise the ISO speed (p. 66) or select a setting other than (flash off), or attach the camera to a tripod or other device.

Playback Information (Playback Mode)

■Standard



■Detailed



Histogram

Shooting Mode
(*Basic Guide* p. 6 – 8)
(p. 59) (p. 39) * (p. 37)
P Tv Av M (p. 41 – 44)

ISO 50 ISO 100 ISO 200 ISO 400
ISO Speed (p. 66)

Shutter Speed (p. 41)

640 320 160 L60 L30 L15
Resolution/Frame Rate (Movies) (p. 30)

Aperture Value (p. 43)

-2 ··· +2
Exposure Compensation (p. 54)

Metering Mode (p. 52)

AWB
White Balance (p. 55)

-2 ··· +2 Flash Exposure Compensation (p. 67)

Flash Output (p. 67)

V N LS S BW
Photo Effect (p. 58)

P L D B G R A S C
My Colors (p. 59)

MF Manual Focus (p. 48)

Macro (*Basic Guide* p. 10)

File Size

Resolution (Still Image) (p. 29)
Movie Length Shown on Movies (p. 37)

The following information may also be displayed with some images.

	A sound file in a format other than the WAVE format is attached or the file format is not recognized.
	JPEG image not conforming to Design rule for Camera File System Standards
RAW	RAW image
?	Unrecognized data type

Information for images shot on other cameras may not display correctly.

Histogram Function

The histogram is a graph that allows you to judge the brightness of the shot image. The greater the bias toward the left in the graph, the darker the image. The greater the bias toward the right, the brighter the image.
If the image is too dark, adjust the exposure compensation to a positive value. Similarly, adjust the exposure compensation to a negative value if the image is too bright (p. 54).

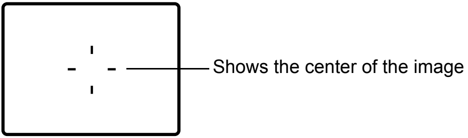
Sample Histograms



Dark Image　　Balanced Image　　Bright Image

Using the Viewfinder

The viewfinder can be used to conserve power by turning the LCD monitor off (p. 15) while shooting.



Viewfinder

Indicators

The indicators light or blink when the power button or the shutter button is pressed.

> Never do the following while an indicator is lit. These actions may corrupt image data.
> - Shake or jolt the camera
> - Shut off the power, or open the memory card slot cover or battery cover

- **Upper Indicator**

  Green: Ready to shoot

  Blinking Green: Image recording/reading/erasing/transferring (when connected to a computer)

  Orange: Ready to shoot (flash on)

  Blinking Orange: Ready to shoot (camera shake warning)

- **Lower Indicator**

  Yellow: Macro mode/Manual focus mode/AF lock mode

  Blinking Yellow: Focusing difficulty (camera beeps once)

Power Saving Function

This camera is equipped with a power saving function. The power will shut off in the following circumstances. Press the power button again to restore power.

Shooting Mode	Powers down approximately 3 minutes after the last control is accessed on the camera. The LCD monitor automatically turns off 1 minute* after the last control is accessed even if [Auto Power Down] is set to [Off]. Press any button other than the power button or change the camera orientation to turn the LCD monitor back on.
Playback Mode **Connected to a Printer**	Powers down approximately 5 minutes after the last control is accessed on the camera.

* This time can be changed.

- The power saving function will not activate during an Auto Play or while the camera is connected to a computer.
- The power saving function settings can be changed (p. 26).

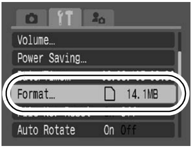
Formatting Memory Cards

You should always format a new memory card or one from which you wish to erase all images and other data.

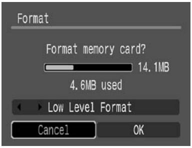
> Please note that formatting (initializing) a memory card erases all data, including protected images and other file types.

1 (Set up) Menu ▶ [Format].

See Menus and Settings (p. 23).



2 Select [OK] and press FUNC./SET.



- To perform a low level format, use the ▲ button to select [Low Level Format] and the ◀ or ▶ button to add a check mark.
- You can stop formatting a card when [Low Level Format] is selected by pressing the **FUNC./SET** button. You can still use a card without problem when formatting is halted, but its data will be erased.

Low Level Format

We recommend you select [Low Level Format] when you think that the recording/reading speed of a memory card has dropped. A low level format may require 2 to 3 minutes with some memory cards.

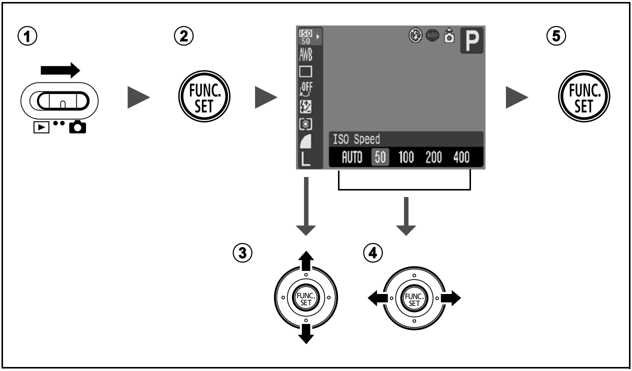
Menus and Settings

Menus are used to set the shooting and playback settings as well as such camera settings as the date/time and electronic beep. The following menus are available.

- **FUNC. Menu**
- **Rec., Play, Set up and My Camera Menus**

FUNC. Menu

This menu sets many of the common shooting functions.



① **Set the mode switch to (shooting).**

② **Press the FUNC./SET button.**

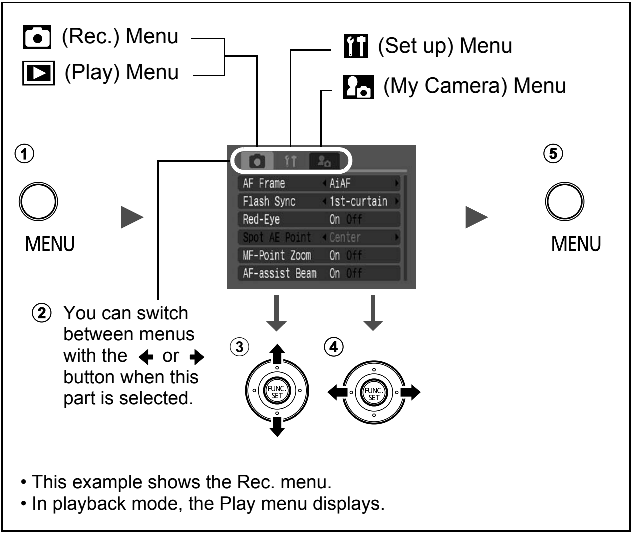
③ **Use the ▲ or ▼ button to select a menu item.**
Some items may not be selectable in some shooting modes.

④ **Use the ◀ or ▶ button to select an option for the menu item.**
After selecting an option, you can press the shutter button to shoot immediately. After shooting, this menu will appear again, allowing you to adjust the settings easily.

⑤ **Press the FUNC./SET button.**

Rec., Play, Set up and My Camera Menus

Convenient settings for shooting or playback can be set with these menus.



① **Press the MENU button.**

② **Use the ← or → button to switch between menus.**
You can also use the zoom lever to switch between menus.

③ **Use the ↑ or ↓ button to select a menu item.**
Some items may not be selectable in some shooting modes.

④ **Use the ← or → button to select an option.**
Menu items followed by an ellipsis (...) can only be set after pressing the **FUNC./SET** button to display the next menu. Press the **FUNC./SET** button again to confirm the setting.

⑤ **Press the MENU button.**

Menu List

FUNC. Menu

The icons shown below are the default settings.

Menu Item	Reference Page	Menu Item	Reference Page
ISO Speed	p. 66	Metering Mode	p. 52
White Balance	p. 55	Compression	p. 30
Drive Mode	p. 32, 35	Frame Rate (Movie)	p. 30
Photo Effect	p. 58	Resolution (Still Image)	p. 29
My Colors	p. 59	Resolution (Movie)	p. 30
+/– (Flash)/ Flash Output	p. 67		

Rec. Menu

*Default setting

Menu Item	Options	Reference Page
AF Frame	AiAF*/Center/FlexiZone	p. 45
Flash Sync	1st-curtain*/2nd-curtain	p. 68
Flash Adjust	Auto*/Manual	p. 66
Slow Synchro	On/Off*	*Basic Guide* p. 9
Red-Eye	On*/Off	*Basic Guide* p. 9
Spot AE Point	Center*/AF Point	p. 52
Safety Shift	On/Off*	p. 43
MF-Point Zoom	On*/Off	p. 48
AF-assist Beam	On*/Off	–
Digital Zoom	On/Off*	p. 31
Review	Off/2*–10 seconds/Hold	*Basic Guide* p. 6

Menu Item	Options	Reference Page
Save Original	On/Off*	p. 61
Reverse Disp.	On*/Off	*Basic Guide* p. 3
Grid Lines	On/Off*	You can display grid lines (split into nine) to make it easier to judge the horizontal and vertical alignment of a photographic subject and to make composition easier. The lines will not be recorded in the images.
Date Stamp	Off*/Date/Date & Time	p. 34
Save Settings	–	p. 69

Play Menu

Menu Item	Reference Page	Menu Item	Reference Page
Protect	p. 81	Auto Play	p. 80
Rotate	p. 78	Print Order	p. 83
Sound Memo	p. 79	Transfer Order	p. 87
Erase All	p. 82		

Set up Menu

*Default setting

Menu Item	Options	Reference Page
Mute	On/Off*	Set to [On] to silence the start-up, operation, self-timer and shutter sounds all at once. However, warnings still sound even when the mute is set to [On] (*Basic Guide* p. 5).

Menu Item	Options	Reference Page
Volume	Off/1/2*/3/4/5	Adjusts the volume of the start-up sound, operation sound, self-timer sound, shutter sound and playback sound. The volume cannot be adjusted if [Mute] is set to [On].
Start-up Vol.		Adjusts the volume of the start-up sound when the camera is turned on.
Operation Vol.		Adjusts the volume of the operation sound that beeps when any button other than the shutter button is pressed.
Selftimer Vol.		Adjusts the volume of the self-timer sound played 2 sec. before the shutter is released.
Shutter Volume		Adjusts the volume of the sound played when the shutter releases. The shutter sound does not play when a movie is recording.
Playback Vol.		Adjusts the volume of movie sounds and sound memos.
Power Saving		p. 20
Auto Power Down	On*/Off	Sets whether or not the camera automatically powers down after a set period of time elapses without the camera being operated.
Display Off	10 sec./20 sec./30 sec./1 min.*/2 min./3 min.	Sets the length of time before the LCD monitor turns off when no camera operation is performed.
Date/Time		*Basic Guide* p. 4
Format		p. 21
File No. Reset	On/Off*	p. 71
Auto Rotate	On*/Off	p. 70

Menu Item	Options	Reference Page
Distance Units	m/cm*/ft/in	Sets the units for the MF indicator distance unit (p. 48).
Language		*Basic Guide* p. 4
Video System	NTSC/PAL	p. 89
Reset All		p. 28

My Camera Menu

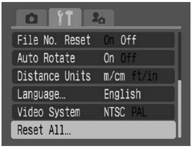
*Default setting

Item	Available Settings	Reference Page
Theme	Selects a common theme for each My Camera settings item.	
Start-up Image	Sets the image displayed when the camera power is turned on.	
Start-up Sound	Sets the sound played when the camera power is turned on.	
Operation Sound	Sets the sound played when any button other than the shutter button is pressed.	p. 90
Selftimer Sound	Sets the sound played 2 seconds before the shutter releases in self-timer mode.	
Shutter Sound	Sets the sound played when the shutter button is pressed. There is no shutter sound for movies.	
My Camera Menu Contents	 (Off)/  */  / 	

Resetting Settings to Their Default Values

1 (Set up) Menu ▶ [Reset All].

See Menus and Settings (p. 23).



2 Select [OK] and press FUNC./SET.

- When the camera is in shooting mode and the shooting mode dial is set to C, only settings registered in C will reset to default values. The C settings will not reset to default values in other cases.
- Settings cannot be reset when the camera is connected to a computer or to a printer.
- The following cannot be reset.
  - Shooting mode
  - The [Date/Time], [Language] and [Video System] options in the (Set up) menu (p. 26, 27)
  - White balance data recorded with the custom white balance function (p. 56)
  - Colors specified in the [Color Accent] (p. 62) or [Color Swap] (p. 63) modes of My Colors
  - Newly added My Camera settings (p. 91)

Shooting

Changing the Resolution and Compression (Still Images)

Shooting Mode AUTO SCN P Tv Av M

1 FUNC. Menu ▶ L * (Resolution)/ * (Compression).

See Menus and Settings (p. 22).



* Default setting.

- Use the ← or → button to select resolution/compression settings and press the **FUNC./SET** button.

Approximate Values for Resolutions

Resolution					Purpose
PowerShot A620		**PowerShot A610**			
L **(Large)**	3072 x 2304 pixels	–		High	Print A3-size prints 297 x 420 mm (11.7 x 16.5 in.)
M1 **(Medium 1)**	2592 x 1944 pixels	L **(Large)**	2592 x 1944 pixels	↑	Print larger than A4-size prints* 210 x 297 mm (8.3 x 11.7 in.) Print larger than Letter-size prints* 216 x 279 mm (8.5 x 11 in.)
M2 **(Medium 2)**	2048 x 1536 pixels	M1 **(Medium 1)**	2048 x 1536 pixels		Print up to A4-size prints* 210 x 297 mm (8.3 x 11.7 in.) Print up to Letter-size prints* 216 x 279 mm (8.5 x 11 in.)
M3 **(Medium 3)**	1600 x 1200 pixels	M2 **(Medium 2)**	1600 x 1200 pixels	↓	Print postcard-size prints 148 x 100 mm (6 x 4 in.) Print L-size prints 119 x 89 mm (4.7 x 3.5 in.)
S **(Small)**	640 x 480 pixels			Low	Send images as e-mail attachments Shoot more images
(Postcard Date Imprint Mode)	1600 x 1200 pixels			When printing to postcards (p. 33)	

* Paper sizes vary according to region.

Approximate Values for Compression Settings

Compression		Purpose
Superfine	High Quality	Shoot higher quality images
Fine	↕	Shoot normal quality images
Normal	Normal	Shoot more images

- See *Image Data Sizes (Estimated)* (p. 127).
- See *Memory Cards and Estimated Capacities* (p. 124).

Changing Resolutions and Frame Rates (Movies)

Shooting Mode ( )

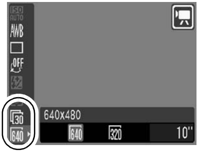
You can change the resolution and frame rate when the movie mode is set to (Standard) or (My Colors) (p. 37).

1 FUNC. Menu ▶ * (Resolution)/ * (Frame Rate).

See Menus and Settings (p. 22).

* Default setting.

- Use the ← or → button to select a resolution/frame rate and press the **FUNC./SET** button.



Resolutions and Frame Rates

	Resolution	Frame Rate (frames/sec.)		
		60	30	15
Standard	640 x 480 pixels	–	○	○
My Colors	320 x 240 pixels	–	○	○
Fast Frame Rate	320 x 240 pixels	○	–	–
Compact	160 x 120 pixels	–	–	○

* Frame rates indicate the number of frames recorded or played back each second. The higher the frame rate, the smoother the appearance of motion.
* The resolution and frame rate are fixed in the and modes.

- See *Image Data Sizes (Estimated)* (p. 127).
- See *Memory Cards and Estimated Capacities* (p. 124).

Using the Digital Zoom

Shooting Mode AUTO SCN ( ) P Tv Av M

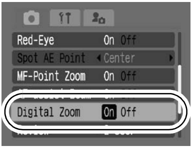
You can shoot zoomed images using the combined digital and optical zooms.

- Stills: zoom up to approximately 16 times
- Movies (Standard): zoom up to approximately 16 times

The digital zoom cannot be used when the LCD monitor is turned off.

1 (Rec.) Menu ▶ [Digital Zoom] ▶ [On].

See Menus and Settings (p. 23).



2 Press the zoom lever toward [telephoto] and shoot.

- The combined digital and optical zoom setting will display in the LCD monitor.
- When you press the zoom lever toward [telephoto], the zoom stops when the lens reaches the maximum optical telephoto setting (when shooting still images).
  Press the zoom lever toward [telephoto] again to activate the digital zoom and further zoom the image digitally.
- Press the zoom lever toward [wide] to zoom out.

Images become coarser the more they are digitally zoomed.

Shooting

Continuous Shooting

Shooting Mode SCN P Tv Av M

In the mode, the camera shoots continuously while the shutter button is held down.
If you use the recommended memory card*, you can shoot continuously (smooth continuous shooting) at a set shooting interval until the memory card is full (p. 124).

***Recommended Memory Card:**
Super high-speed SDC-512MSH memory card (sold separately) immediately after a low level format (p. 21).

- This reflects standard shooting criteria established by Canon. Actual results may vary according to the subject and shooting conditions.
- Even if continuous shooting suddenly stops, the memory card may not be full.

1 FUNC. Menu ▶ * (Drive Mode) ▶

See Menus and Settings (p. 22).

* Default setting.



2 Shoot.

- The camera will continue to record successive images while the shutter button is held down. Recording will cease when the shutter button is released.

To Cancel Continuous Shooting
Follow procedure 1 to display .

- The interval between shots lengthens when the built-in memory of the camera fills.
- If the flash is used, the interval between shots lengthens because the flash must charge.

Postcard Date Imprint Mode

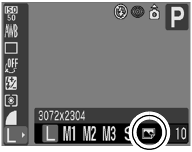
Shooting Mode AUTO SCN P Tv Av M

You can shoot images with the optimal settings for postcards by composing them inside the print area (width-to-height ratio of approximately 3:2) shown in the LCD monitor.

1 **FUNC. Menu ▶ L * (Resolution) ▶ (Postcard).**

See Menus and Settings (p. 22).

* Default setting.



- The resolution and the compression of the Postcard Date Imprint mode

	PowerShot A620	PowerShot A610
Resolution	M3 (1600 x 1200)	M2 (1600 x 1200)
Compression	(Fine)	(Fine)

- When you press the shutter button halfway, the area that will not get printed grays out.

The digital zoom cannot be used in this mode.

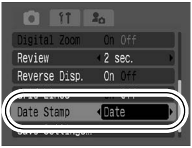
For printing instructions, refer to the *Direct Print User Guide*.

Embedding the Date in the Image Data

You can embed the date in image data when (Postcard Date Imprint Mode) is selected.

1 **(Rec.) Menu ▶ [Date Stamp] ▶ [Date]/[Date & Time].**

See Menus and Settings (p. 23).



- LCD monitor display
  : [Off]
  : [Date]/[Date & Time]

- Ensure that the camera's date/time is set beforehand (p. 26).
- The date stamp cannot be deleted from the image data once it has been set.

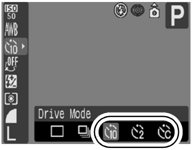
Using the Self-Timer

Shooting Mode AUTO SCN P Tv Av M

You can set a 10 sec. ( ) or 2 sec. ( ) delay, or a custom delay time and the number of shots (Custom Timer), for shooting after the shutter button is pressed.

1 **FUNC. Menu ▶ * (Drive Mode) ▶ / / .**

See Menus and Settings (p. 22).



* Default setting.

- : 2 sec. before the shutter releases, the self-timer sound and lamp will speed up.
- : The self-timer sound will play when the shutter button is pressed and the shutter will release 2 sec. later.
- : You can change the delay time (0 – 10, 15, 20, 30 sec.) and number of shots (1 – 10) (p. 36). However, these settings cannot be set for , and modes.

2 **Shoot.**

- When the shutter button is pressed fully, the self-timer lamp will blink. When using red-eye reduction, the self-timer lamp will blink and then stay lit for the last 2 seconds.

To Cancel the Self-Timer

Follow procedure 1 to display .

You can change the self-timer sound (p. 27).

Shooting

Changing the Delay Time and Number of Shots ( )

1 ▶ MENU.

See Menus and Settings (p. 22).



2 **Select [Delay]/[Shots] using the ↑ or ↓ button and change the settings using the ← or → button.**

- The self-timer sound will behave as follows.
  - The self-timer sound will start 2 sec. before the shutter releases.
  - If multiple shots have been specified for the [Shots] option, the sound will play for the first shot only.



If the [Shots] option is set to 2 or more shots, the following occurs.
- The exposure and white balance are locked at the settings selected for the first shot.
- The interval between shots lengthens when the built-in memory of the camera fills.
- If the flash is used, the interval between shots lengthens because the flash must charge.
- Shooting will automatically cease if the memory card becomes full.

Movie Shooting

Shooting Mode

The following four movie modes are available.

Standard	
	You can select the resolution and frame rate and record until the memory card is full (when a super high-speed memory card is used, such as the recommended SDC-512MSH). The digital zoom can be used while shooting in this mode (p. 31).
	• Resolution: (640 x 480), (320 x 240) • Frame Rate: (30 frames/sec.), (15 frames/sec.) • Maximum Size: 1 GB/movie
Fast Frame Rate	
	Use this mode to record fast moving subjects, such as in sports photography.
	• Resolution: (320 x 240) • Frame Rate: (60 frames/sec.) • Maximum Clip Length: 1 minute
Compact	
	Since the resolution is low, this mode is convenient for sending movies as e-mail attachments or when the memory card capacity is low.
	• Resolution: (160 x 120) • Frame Rate: (15 frames/sec.) • Maximum Clip Length: 3 minutes
My Colors	
	You can change image colors and then shoot (p. 59). As with the Standard mode, you can select the resolution and frame rate and record until the memory card is full (when a super high-speed memory card is used, such as the recommended SDC-512MSH).
	• Resolution: (640 x 480), (320 x 240) • Frame Rate: (30 frames/sec.), (15 frames/sec.) • Maximum Size: 1 GB/movie

- The recording time will vary according to the capacity of the memory card you use (p. 124).

1 Select a movie mode using the ← or → button.



- In or mode, you can change the resolution and frame rate (p. 30).

2 Shoot.

- Pressing the shutter button halfway automatically sets the exposure, focus and white balance settings.
- Pressing the shutter button fully starts recording video and sound simultaneously.
- During shooting, the recording time (in seconds) and [●Rec] appears on the LCD monitor.
- Pressing the shutter button fully again stops recording. Recording will stop automatically under the following circumstances.
  - When the maximum recording time elapses
  - When the built-in memory or memory card becomes full

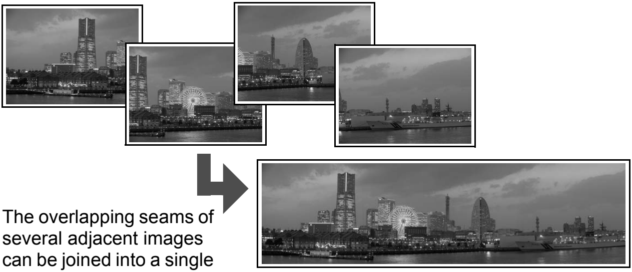
- You are recommended to use a memory card that has been formatted in your camera to shoot movies (p. 21). The memory card supplied with the camera may be used without further formatting.
- Be careful of the following while recording.
  - Try not to touch the microphone.
  - Do not press any buttons other than the shutter button. The sound that buttons make will be recorded in the movie.
  - The camera will automatically adjust the exposure and white balance to suit the shooting conditions during recording. Please note, however, that the sounds made by the camera automatically adjusting the exposure may also be recorded.
- The focus and optical zoom settings remain fixed for subsequent frames at the values selected for the first frame.

QuickTime 3.0 or later is required to play back movies (Data type: AVI/Compression method: Motion JPEG) on a computer. QuickTime (for Windows) is included on the Canon Digital Camera Solution Disk. On the Macintosh platform, this program is standard with Mac OS X or later.

Shooting Panoramic Images (Stitch Assist)

Shooting Mode

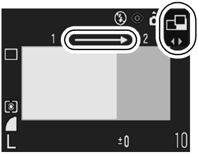
Stitch Assist can be used to shoot overlapping images that can later be merged (stitched) to create one panoramic image on a computer.



The overlapping seams of several adjacent images can be joined into a single panoramic image.

1 Use the ← or → button to select a shooting direction.

- You can select from the following two shooting directions.
  - → Left to right horizontally
  - ← Right to left horizontally



Shooting

2 Shoot the first image in the sequence.

- The exposure and white balance are set and locked with the first image.



3 Compose the second image so that it overlaps a portion of the first and shoot.

- You can press the ◆ or ◆ button to return to the previously recorded image to retake the shot.
- Minor discrepancies in the overlapping portions can be corrected when the images are stitched together.

4 Repeat the procedure for additional images.

- A sequence may contain up to 26 images.
- Press the **FUNC./SET** button after the last shot.

- You cannot display the images on a TV when shooting in Stitch Assist mode.
- The settings for the first image are applied to the second image onward.

- Use PhotoStitch, a supplied software program, to merge the images on a computer.
- When the button is pressed, you can switch between the items which you can set.
  - Exposure compensation/Shooting direction selection

P Program AE

Shooting Mode P

The camera automatically sets the shutter speed and aperture value to match the brightness of the subject.

- When a correct exposure cannot be obtained, the shutter speed and aperture values are shown in red on the LCD monitor when the shutter button is pressed halfway. Use the following shooting methods to obtain the correct exposure and make them show in white.
  - Using the flash
  - Changing the ISO speed
  - Changing the metering method

- Regarding the aperture value and shutter speed (p. 42).
- You can change the combinations of shutter speeds and aperture values without altering the exposure (p. 50).

Tv Setting the Shutter Speed

Shooting Mode Tv

When you set the shutter speed, the camera automatically selects an aperture value to match the brightness of the subject. Faster shutter speeds allow you to catch an instantaneous image of a moving subject, while slower speeds create a flowing effect and allow you to shoot without a flash in dark areas.

- If the aperture value is shown in red, the image is underexposed (insufficient light) or overexposed (too much light). Use the ← or → button to adjust the shutter speed until the aperture value shows in white.
- The nature of CCD image sensors is such that noise in the recorded image increases at slow shutter speeds. This camera, however, applies special processing to images shot at shutter speeds slower than 1.3 seconds to eliminate the noise, thereby producing high-quality images. (However, a certain amount of processing time may be required before the next image can be shot.)

- The aperture value and shutter speed change according to the zoom state as follows.

	Aperture Value	Shutter Speed (seconds)
Maximum Wide Angle	F2.8 – 3.2	15 – 1/1250
	F3.5 – 4.0	15 – 1/1600
	F4.5	15 – 1/2000
	F5.0 – 8.0*[1]	15 – 1/2500
Maximum Telephoto	F4.1 – 4.5	15 – 1/1250
	F5.0 – 6.3	15 – 1/1600
	F7.1 – 8.0*[2]	15 – 1/2500

*[1] In AUTO, an aperture value of F11 at maximum wide angle may be possible depending on the shooting conditions.
*[2] In AUTO, an aperture value of F16 at maximum telephoto may be possible depending on the shooting conditions.

- The fastest shutter speed for flash synchronization is 1/500 second. The camera automatically resets the shutter speed to 1/500 second if a faster speed is selected.

Shutter Speed Display

- The following shutter speeds can be set. 1/160 indicates 1/160 second. Also, 0"3 indicates 0.3 second and 2" indicates 2 seconds.

15" 13" 10" 8" 6" 5" 4" 3"2 2"5 2" 1"6 1"3 1" 0"8 0"6 0"5 0"4 0"3 1/4 1/5 1/6 1/8 1/10 1/13 1/15 1/20 1/25 1/30 1/40 1/50 1/60 1/80 1/100 1/125 1/160 1/200 1/250 1/320 1/400 1/500 1/640 1/800 1/1000 1/1250 1/1600 1/2000 1/2500

- You can change the combinations of shutter speeds and aperture values without altering the exposure (p. 50).

Av Setting the Aperture

Shooting Mode Av

The aperture adjusts the amount of light entering through the lens. When you set the aperture value, the camera automatically selects a shutter speed to match the brightness.
Selecting a lower aperture value (opening the aperture) allows you to blur the background and create a beautiful portrait. A higher aperture value (closing it) brings the entire range from foreground to background into focus. The larger the aperture value, the greater the range of the image brought into clear focus.

- If the shutter speed is shown in red, the image is underexposed (insufficient light) or overexposed (too much light). Adjust the aperture value using the ← or → button until the shutter speed display turns to white.
- Some aperture values may not be available with certain zoom positions (p. 42).

In this mode, the shutter speed range with synchronized flash is 1/60 second to 1/500 second. The aperture value setting may therefore be changed automatically to match the synchronized flash speed even if its value was set previously.

Aperture Value Display

- The larger the aperture value, the smaller the lens aperture.

F2.8	F3.2	F3.5	F4.0	F4.1	F4.5	F5.0	F5.6	F6.3	F7.1	F8.0*

* In AUTO, an aperture value of F11 at max. wide angle and of F16 at max. telephoto may be possible depending on the shooting conditions.

- You can change the combinations of shutter speeds and aperture values without altering the exposure (p. 50).

Safety Shift

When Tv and Av modes, if [Safety Shift] is set to [On] in the Rec. menu, the shutter speed or aperture value is automatically adjusted for the correct exposure when it cannot be otherwise obtained. The safety shift function does not work when the flash fires.

M Manually Setting the Shutter Speed and Aperture

Shooting Mode M

You can manually set the shutter speed and aperture to shoot images.

- When you press the shutter button halfway, the difference between the standard exposure* and the selected exposure appears on the LCD monitor. If the difference is more than ±2 stops, "–2" or "+2" appears in red.

* Standard exposure levels are calculated by measuring light according to the currently selected metering mode.

- If you wish to change the exposure, select shutter speed or aperture using the ± button, then adjust the value using the ← or → button.
- If the zoom is adjusted after these values are set, the aperture value may change in accordance with the zoom position.
- The LCD monitor's brightness matches the selected shutter speed and aperture value.
  When you select a fast shutter speed or shoot a subject in a dark place, the image will always be bright if the flash is set to (Flash on, with red-eye reduction) or (Flash on).
- For the correlation between aperture value and shutter speed, see page 42.

Selecting an AF Frame

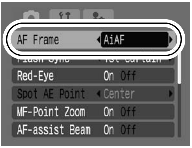
Shooting Mode SCN P Tv Av M

The AF frame indicates the area of the composition on which the camera focuses. You can set the AF frame in the following ways.

LCD monitor display	Menu selection	Explanation
□ □ □ □ □ □ □ □ □	**AiAF**	The camera automatically selects between 9 AF frames to focus on according to the shooting conditions.
□ □ □ □ ■ □ □ □ □	**Center**	The camera focuses using the center AF frame. This is convenient for making sure the focus is exactly where you want it.
↑ ←□→ ↓ (Desired position)	**FlexiZone (Manual setting)**	Mode dial: P / Tv / Av / M You can move the AF frame manually to the desired position. This is convenient for focusing accurately on your chosen subject to obtain the composition you desire.

1 (Rec.) Menu ▶ [AF Frame] ▶ [AiAF]/[Center]/[FlexiZone].

See Menus and Settings (p. 23).



- When [FlexiZone] is selected (p. 46).

- The focus is locked to the center AF frame when the digital zoom is used.
- [FlexiZone] cannot be selected when the LCD monitor is off.
- The AF frame appears as follows (when the LCD monitor is on) when the shutter button is pressed halfway.
  - Green : Shooting preparations complete
  - Yellow: Focusing difficulty*

* It will not be displayed when the AF frame is set to [AiAF].

Selecting an AF Frame Manually (when [FlexiZone] is selected)

1 **Turn on the LCD monitor**

2 **Press the ± button several times until the AF frame turns green.**

- Depending on the shooting mode, you can switch between the following setting options by pressing the ± button.

P	Exposure compensation/AF frame
Tv	Shutter speed/Exposure compensation/AF frame
Av	Aperture value/Exposure compensation/AF frame
M	Shutter speed/Aperture value/AF frame

3 **Use the ↑, ↓, ← or → button to move the AF frame to the desired position and press the ± button.**

- If you hold down the ± button, the AF frame will return to the original position (center) (at the same time, the setting options will switch as shown in the above table).

- When [Spot AE Point] is selected as the light metering mode, you can use the selected AF frame as the Spot AE Point (p. 53).
- It cannot be selected while manual focus is being used (p. 48).

Shooting Hard-to-Focus Subjects (Focus Lock, AF Lock, Manual Focus)

Shooting Mode AUTO SCN P Tv Av M

It may be difficult to focus on the following types of subjects.

- Subjects with extremely low contrast to the surroundings
- Scenes with a mixture of near and far subjects.
- Subjects with extremely bright objects at the center of the composition
- Subjects that are moving quickly
- Subjects through glass: Try to shoot as close to the glass as possible to reduce the chances of light reflecting back off the glass.

Shooting with the Focus Lock

The focus lock can be used in any shooting mode.

1 Aim the camera so that an object at the same focal distance as the main subject is centered in the viewfinder or in the AF frame displayed on the LCD monitor.

2 Press the shutter button halfway.

3 Re-aim the camera to compose the shot as desired and press the shutter button fully.

Shooting with the AF Lock

The AF lock cannot be used in the AUTO and modes, and when SCN is set to .

1 Turn on the LCD monitor.

2 Aim the camera so that an object at the same focal distance as the main subject is centered in the AF frame.

3 Press and hold the shutter button halfway and press the MF button.

- The MF icon and the MF indicator will appear on the LCD monitor.

4 Re-aim the camera to compose the shot as desired and shoot.

To Release the AF Lock
Press the MF button.

- When shooting with the focus lock or AF lock using the LCD monitor, setting [AF Frame] to [Center] (p. 24) makes shooting easier since the camera focuses using the center AF frame only.
- The AF lock is convenient because you can let go of the shutter button to compose the image. Moreover, the AF lock is still effective after the picture is taken, allowing you to capture a second image with the same focus.

Shooting in Manual Focus Mode

The focus can be manually set.
The manual focus cannot be used in the AUTO and modes, and when SCN is set to .

1 Turn on the LCD monitor.

2 Press the MF button several times to display MF.

- The MF indicator is displayed.
- When the (Rec.) menu's [MF-Point Zoom] is set to [On], the portion of the image in the AF frame will appear magnified*.

  * The image will not appear magnified in mode, when the digital zoom is activated or when a TV is used as the display.

MF indicator



* Can also be set so that the image displayed is not magnified (p. 24).

- Depending on the shooting mode, pressing the [±] button will switch between the setting items as follows:

[Portrait], [Landscape], [Night Snapshot], [Custom], P	Exposure compensation/ MF
SCN, [Movie]	SCN or [Movie] mode/Exposure compensation/ MF
Tv	Shutter speed/Exposure compensation/ MF
Av	Aperture value/Exposure compensation/ MF
M	Shutter speed/Aperture value/ MF

3 Press the ← or → button and adjust the focus.

- The MF indicator shows approximate figures. Use them as a shooting guideline only.

To Cancel the Manual Focus
Press the MF button.

Locking the Exposure Setting (AE Lock)

Shooting Mode [Custom] P Tv Av

You can set the exposure and focus separately. This is effective when the contrast is too strong between the subject and background or when a subject is backlit.

> ! You must set the flash to [Flash off]. The AE lock cannot be set if the flash fires.

1 Turn on the LCD monitor.

2 Focus on the part of the subject on which you wish to lock the exposure setting.

3 Press and hold the shutter button halfway and press the [±] button.

- The [✱] icon will display.

4 **Re-aim the camera to compose the shot as desired and press the shutter button fully.**

To Release the AE Lock

Operate a button other than the ← or → button.

You can use the FE lock when using the flash (p. 51).

Changing the shutter speed and aperture value combination

The automatically selected combinations of shutter speeds and aperture values can be freely changed without altering the exposure to shoot images.

1 **Set the shooting mode dial to P, Tv, or Av.**

2 **Turn on the LCD monitor.**

3 **Focus on the subject on which you wish to lock the exposure.**

- In Tv and Av modes, the Safety Shift function works if [Safety Shift] is set to [On] (p. 43).

4 **Press and hold the shutter button halfway and press the ± button.**

- The exposure setting will lock and the ✱ icon will appear on the LCD monitor.

5 **Press the ← or → button until the desired shutter speed or aperture value is reached.**

6 **Recompose the image and shoot.**

- The setting will cancel after the shot is taken.

Locking the Flash Exposure Setting (FE Lock)

Shooting Mode **P Tv Av**

You can lock the flash exposure so that the exposure settings are correctly set regardless of the composition of your subject.

1 **Turn on the LCD monitor.**

2 **Press the button and set it to (flash on).**

3 **Focus on the part of the subject on which you wish to lock the flash exposure setting.**

4 **Press and hold the shutter button halfway and press the button.**

- The flash will pre-fire and will display.

5 **Re-aim the camera to compose the shot as desired and press the shutter button fully.**

To Release the FE Lock

Operate a button other than the ← or → button.

The FE lock function is not available when [Flash Adjust] is set to [Manual] (p. 66).

Shooting

Switching between Metering Modes

Shooting Mode P Tv Av M

1 FUNC. Menu ▶ * (Evaluative)

See Menus and Settings (p. 22).



* Default setting.

- Use the ◀ or ▶ button to select the metering mode and press the **FUNC./SET** button.

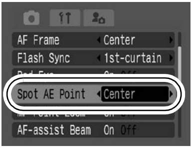
Metering Methods

[Evaluative icon]	**Evaluative**		Appropriate for standard shooting conditions, including backlit scenes. The camera divides images into several zones for metering. It evaluates complex lighting conditions, such as the position of the subject, the brightness, the direct light, and the backlighting, and adjusts the settings to the correct exposure for the main subject.
[Center Weighted Average icon]	**Center Weighted Average**		Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
[Spot icon]	**Spot**		Meters the area within the spot AE point frame.
		Center	Locks the spot metering frame to the center of the LCD monitor.
		AF Point	Moves the spot AE point to the same position as the selected AF frame.

Move the spot AE point to the same position as the selected AF frame/Lock the spot AE point to the center of the LCD monitor

1 **(Rec.) Menu ▶ [Spot AE Point] ▶ [Center]/[AF Point]**

See Menus and Settings (p. 23).



- When [Spot AE Point] is set to [Center], the spot AE point frame appears at the center of the LCD monitor.
- When [Spot AE Point] is set to [AF Point], it appears inside the selected AF frame.

- The [AF Point] can only be selected when the AF frame is set to [FlexiZone] (p. 45).
- It cannot be selected when the shooting mode is .

Adjusting the Exposure Compensation

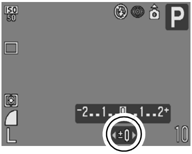
Shooting Mode SCN P Tv Av

Adjust the exposure compensation setting to avoid making the subject too dark when it is backlit or shot against a bright background or to avoid making lights appear too bright in night shots.

1 Turn on the LCD monitor.

2 Press the button several times until the exposure compensation bar is displayed.

- Use the ◆ or ◆ buttons to adjust the exposure compensation and press the button.
- Depending on the shooting mode, pressing the button will switch between the setting items as follows:



SCN	SCN mode/Exposure compensation
Tv	Shutter speed/Exposure compensation
Av	Aperture value/Exposure compensation

To Cancel the Exposure Compensation
Restore the compensation value to [0].

Exposure compensation is not available in the or My Colors mode.

Adjusting the Tone (White Balance)

Shooting Mode P Tv Av M

Normally, the AWB (Auto) white balance setting selects an optimal white balance. When the AWB (Auto) setting cannot produce natural looking colors, change the white balance using a setting appropriate for the light source.

1 **FUNC. Menu ▶ AWB * (Auto).**

See Menus and Settings (p. 22).



* Default setting.

- Use the ◀ or ▶ button to select a white balance setting and press the **FUNC./SET** button.

White Balance Settings

AWB	**Auto**	Settings are automatically set by the camera.
	Day Light	For recording outdoors on a bright day.
	Cloudy	For recording under overcast, shady or twilight skies.
	Tungsten	For recording under tungsten and bulb-type 3-wavelength fluorescent lighting.
	Fluorescent	For recording under warm-white, cool-white or warm-white (3-wavelength) fluorescent lighting.
	Fluorescent H	For recording under daylight fluorescent, or daylight fluorescent-type 3-wavelength fluorescent lighting.
	Underwater	Appropriate for shooting images with the Waterproof Case WP-DC90 (sold separately). This mode yields image data in the optimal white balance to record images with natural hues by reducing the bluish tone.
	Custom	For recording with the optimal white balance data memorized in the camera from a white-colored object, such as white paper or cloth.

This setting cannot be adjusted when the S or BW photo effect is selected.

Using the Custom White Balance

You can set a custom white balance to obtain the optimal setting for the shooting conditions by having the camera evaluate an object, such as a piece of white paper or cloth, or a photo-quality gray card that you wish to establish as the standard white color.
In particular, take a custom white balance reading for the following situations that are difficult for the AWB (Auto) setting to detect correctly.

- Shooting close-ups
- Shooting subjects of monotone color (such as sky, sea or forest)
- Shooting with a peculiar source of light (such as a mercury-vapor lamp)

1 **FUNC. Menu ▶ AWB* (Auto) ▶ (Custom).**

See Menus and Settings (p. 22).

* Default setting.



2 **Aim the camera at a piece of white paper or cloth and press MENU.**

- If you are viewing it with the LCD monitor, ensure that the center frame is completely filled with the white image. If you are using the optical viewfinder, ensure that the entire field is filled.

- You are recommended to set the shooting mode to **P** and the exposure compensation setting to [±0] before setting a custom white balance.
  The correct white balance may not be obtained when the exposure setting is incorrect (image appears completely black or white).
- Shoot with the same settings as when reading the white balance data. If the settings differ, the optimal white balance may not be set.
  In particular, the following should not be changed.
  - ISO Speed
  - Flash
    Setting the flash to on or off is recommended. If the flash fires when reading the white balance data with the flash set to (Auto) or (Auto with red-eye reduction), make sure that you also use the flash when you shoot.
- Since the white balance data cannot be read in Stitch Assist mode, preset the white balance in another shooting mode beforehand.
- The camera will retain the custom white balance setting that you record even if you reset the camera to the default settings (p. 28).

Changing the Photo Effect

Shooting Mode P Tv Av M

By setting a photo effect before you shoot, you can change the look and feel of the pictures you take.

1 **FUNC. Menu ▶ * (Effect Off).**

See Menus and Settings (p. 22).

* Default setting.

- Use the ← or → button to select a photo effect and press the **FUNC./SET** button.

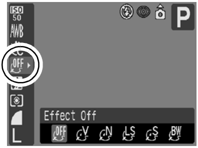


Photo Effect Settings

	Effect Off	Records normally with this setting.
	Vivid	Emphasizes the contrast and color saturation to record bold colors.
	Neutral	Tones down the contrast and color saturation to record neutral hues.
	Low Sharpening	Records subjects with softened outlines.
	Sepia	Records in sepia tones.
	B/W	Records in black and white.

Shooting in a My Colors Mode

Shooting Mode ( )

A My Colors mode easily changes the colors in an image when it is shot, allowing you to alter the balance between red, green and blue, transform pale or tanned skin or change a color specified in the LCD monitor into a different color. Since they work with both stills and movies, these modes let you enjoy producing various image or movie effects.
However, depending on the shooting conditions, the images may appear rough or you may not get the expected color. Before you try to photograph important subjects, we highly recommend that you shoot trial images and check the results.
Moreover, the camera will record both the My Colors image and the original unaltered image if you set [Save Original] (p. 61) to [On] when shooting still images.

My Colors Settings

	Positive Film	Use this option to make red, green or blue colors more intense like the Vivid Red, Vivid Green or Vivid Blue effects. It can produce intense natural-appearing colors like those obtained with positive film.
	Lighter Skin Tone*	Use this option to make skin tones lighter.
	Darker Skin Tone*	Use this option to make skin tones darker.
	Vivid Blue	Use this option to emphasize blue tints. It makes blue subjects, such as the sky or ocean, more vivid.
	Vivid Green	Use this option to emphasize green tints. It makes green subjects, such as mountains, new growth, flowers and lawns, more vivid.
	Vivid Red	Use this option to emphasize red tints. It makes red subjects, such as flowers or cars, more vivid.

	Color Accent	Use this option to have only the color specified in the LCD monitor remain and to transform all others to black and white.
	Color Swap	Use this option to transform a color specified in the LCD monitor into another. The specified color can only be swapped into one other color, multiple colors cannot be chosen.
	Custom Color	Use this option to freely adjust the color balance between red, green, blue and skin tones*. It can be used to make subtle adjustments, such as making blue colors more vivid or face colors brighter.

* The skin colors of non-human subjects may also be altered.

* You may not obtain the expected results depending on the skin color.

1 FUNC. Menu ▶ * (Positive Film).

See Menus and Settings (p. 22).



* Default setting.

- Use the ← or → button to select a My Colors mode.

2 Shoot.

- **Modes**
  Press the **FUNC./SET** button. The display will return to the shooting screen and you can shoot.
- **Modes**
  : See *Setting the Camera to the Color Accent Mode* (p. 62).
  : See *Setting the Camera to the Color Swap Mode* (p. 63).
  : See *Setting the Camera to a Custom Color Mode* (p. 64).

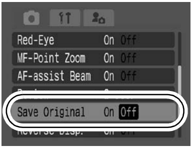
The ISO speed will rise with some settings, which may increase the “noise” in the image.

Changing the Save Method for the Original Image

When you are shooting still images in a My Colors mode, you can specify whether or not both the altered image and the original image are recorded.

1 (Rec.) Menu ▶ [Save Original] ▶ [On]/[Off].

See Menus and Settings (p. 23).



- If [On] is selected, the two images will be numbered consecutively with the altered image following the original.

When [Save Original] is Set to [On]

- Only the altered image is shown in the LCD monitor during shooting.
- The image that appears in the LCD monitor immediately after recording is the altered image. If you erase the image at this point, the original image is erased along with the altered image.
  Exercise adequate caution before deleting an image.
- Since two images are recorded with each shot, the number of shots remaining is approximately half the number displayed when this function is set to [Off].

Setting the Camera to the Color Accent Mode

Colors other than the color specified in the LCD monitor are shot in black and white.

1 **(Color Accent) ► MENU.**

See Menus and Settings (p. 22).



- The camera will switch to color input mode and the display will alternate between the original image and the color accent image (using the previously set color).

2 **Aim the camera so that the color you wish to retain appears at the center of the LCD monitor and press the ← button.**

- Only one color can be specified.
- You can use the ↑ or ↓ button to specify the range of colors that are retained.
  - –5: Only takes the color that you want to retain.
  - +5: Also takes colors close to the one that you want to retain.

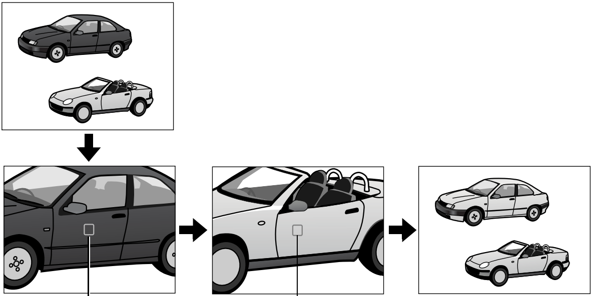
3 **FUNC./SET.**

- This completes the setting.
- If you press the **MENU** button at this point, you will return to the screen where you can select a My Colors mode.

- The default color accent is green.
- You may not obtain the expected results after color input mode if you use the flash, or change the white balance or metering settings.
- The specified color accent is retained even if the camera's power is turned off.

Setting the Camera to the Color Swap Mode

This mode allows you to transform a color specified in the LCD monitor into another.



1 **(Color Swap) ▶ MENU.**

See Menus and Settings (p. 22).



- The camera will switch to color input mode and the display will alternate between the original image and the color swap image (using the previously set color).

2 **Aim the camera so that the original color appears at the center of the LCD monitor and press the ← button.**

- Only one color can be specified.
- You can use the ↑ or ↓ button to specify the range of colors that are swapped.

  –5: Only takes the color that you want to swap.

  +5: Also takes colors close to the one that you want to swap.

Shooting

3 **Aim the camera so that the desired color appears at the center of the LCD monitor and press the ➔ button.**

- Only one color can be specified.

4 **(FUNC./SET).**

- This completes the setting.
- If you press the **MENU** button at this point, you will return to the screen where you can select a My Colors mode.

- The default setting for color swap mode changes green into white.
- You may not obtain the expected results after color input mode if you use the flash, or change the white balance or metering settings.
- The colors specified in the color swap mode are retained even if the camera's power is turned off.

Setting the Camera to a Custom Color Mode

This mode allows you to adjust the color balance for red, green, blue and skin tones.

1 **(Custom Color) ▶ (MENU).**

See Menus and Settings (p. 22).



2 **Use the ↑ or ↓ button to select [Red], [Green], [Blue] or [Skin Tone] and the ← or → button to adjust the color balance.**

- The altered color will display.



3 **(FUNC./SET).**

- This completes the setting.
- If you press the **MENU** button at this point, you will return to the screen where you can select a My Colors mode.

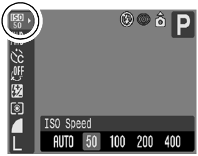
Adjusting the ISO Speed

Shooting Mode **P Tv Av M**

Raise the ISO speed when you wish to reduce the effects of camera shake, turn the flash off when shooting in a dark area, or use a fast shutter speed.

1 FUNC. Menu ▶ ISO 50 * (ISO Speed).

See Menus and Settings (p. 22).



* Default setting.

- Use the ← or → button to select an ISO speed and press the **FUNC./SET** button.
- Selecting [Auto] sets the sensitivity to produce the optimal image quality.

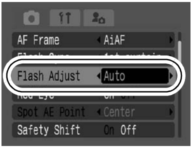
Switching between Flash Adjustment Settings

Shooting Mode **Tv Av**

Although the built-in flash will fire with automatic flash adjustments (except in the **M** mode), it is also possible to set it so that it fires without any adjustments.

1 (Rec.) Menu ▶ [Flash Adjust] ▶ [Auto]/[Manual].

See Menus and Settings (p. 23).



Compensating the Flash Adjustment / Flash Output

Shooting Mode P Tv Av M

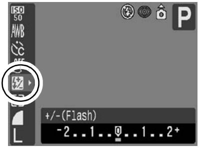
+/– (Flash) (Flash Exposure Compensation)	● When the shooting mode is set to , , , , , P or when [Flash Adjust] is set to [Auto] (p. 66) in Tv or Av mode, settings can be adjusted in 1/3-stop increments in the range of –2 to +2 stops. ● You can combine the flash exposure compensation with the camera's exposure compensation function to achieve creative effects which compensate for background exposure.
Flash Output	● When Shooting mode is set to M or when [Flash Adjust] is set to [Manual] in Tv or Av mode (p. 66), the flash output can be controlled in three steps, starting from FULL, when shooting.

1 Turn on the LCD monitor.

2 FUNC. Menu ▶ +/– (Flash)/ (Flash Output).

See Menus and Settings (p. 22).

● Adjust the compensation/output using the ← or → button and press the **FUNC./SET** button.



Example:
Flash Exposure Compensation

Shooting

Switching the Timing at which the Flash Fires

Shooting Mode P Tv Av M

1st-curtain	The flash fires right after the shutter opens, regardless of the shutter speed. Usually, the 1st-curtain is used when shooting.
2nd-curtain	The flash fires right before the shutter closes. Compared with the 1st-curtain, the flash fires later and this allows you to shoot images in which, for example, a car's taillights seem to trail off behind.

1 (Rec.) Menu ▶ [Flash Sync] ▶ [1st-curtain]/[2nd-curtain].



Image shot with the 1st-curtain setting



Image shot with the 2nd-curtain setting

C Saving Custom Settings

Shooting Mode P Tv Av M C

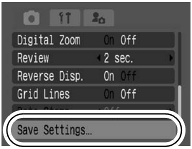
You can save frequently used shooting modes and various shooting settings to the C (Custom) mode. When necessary, you can then shoot images with previously saved settings by simply turning the mode dial to C.
Settings that are not memorized when the shooting mode is changed or when the power is turned off (such as continuous shooting or self-timer) are also remembered.

1 Switch to the shooting mode you wish to save and set the settings.

- To change some of the settings saved in C (other than shooting mode), select C.
- **Functions which can be saved in C**
  - Shooting mode (P, Tv, Av, M)
  - Items which can be set in P, Tv, Av and M modes (p. 136)
  - Rec. menu settings
  - Zoom location
  - Manual focus location

2 (Rec.) Menu ▶ [Save Settings].

See Menus and Settings (p. 23).



3 Select [OK] and press FUNC./SET.

- The setting contents do not influence other shooting modes.
- Saved settings can be reset (p. 28).

Setting the Auto Rotate Function

Shooting Mode AUTO SCN P Tv Av M

Playback Mode ▶

Your camera is equipped with an Intelligent Orientation sensor that detects the orientation of an image shot with the camera held vertically and automatically rotates it to the correct orientation when viewing it in the LCD monitor.

1 (Set up) Menu ▶ [Auto Rotate] ▶ [On]/[Off].

See Menus and Settings (p. 23).



- When the Auto Rotate function is set to [On] and the LCD monitor is set to the detailed display mode, the (normal), (right end is down) or (left end is down) will appear in the display.

- This function may not operate correctly when the camera is pointed straight up or down. Check that the arrow is pointing in the right direction and if it is not, then set the Auto Rotate function to [Off].
- Even if the Auto Rotate function is set to [On], the orientation of images downloaded to a computer will depend upon the software used to download the images.

When the camera is held vertically to shoot, the Intelligent Orientation sensor judges the upper end to be "up" and the lower end to be "down". It then regulates the optimal white balance, exposure and focus for vertical photography. This function operates regardless of the on/off status of the Auto Rotate function.

Resetting the File Number

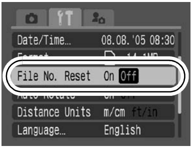
Shooting Mode AUTO SCN P Tv Av M

Playback Mode

The images you shoot are automatically assigned file numbers. You can select how the file number is assigned.

1 **(Set up) Menu ▶ [File No. Reset] ▶ [On]/[Off].**

See Menus and Settings (p. 23).



File No. Reset Function

On	The file number is reset to the start (100-0001) each time a new memory card is inserted. New images recorded on memory cards with existing files are assigned the next available number.
Off	The file number of the last image to be shot is memorized so that images recorded to a new memory card start from the next number. This is convenient for avoiding file name duplication when managing all your images together on a computer.

See the *Software Starter Guide* regarding memory card folder structures.

Playback/Erasing

Please also see the *Basic Camera User Guide* (p. 11).

Magnifying Images

1 Press the zoom lever toward .

- will display and a magnified portion of the image will display.
- Images can be magnified up to a factor of approximately 10x.



Approximate Location of the Displayed Area

2 Use the , , or button to move around the image.

- If you press the **FUNC./SET** button while in magnified display, the camera switches to image advance mode and will display. You can use the or button to advance to the next or previous image at the same level of magnification. The image advance mode is cancelled when you press the **FUNC./SET** button again.
- You can change the magnification level with the zoom lever.

To Cancel the Magnified Display

Press the zoom lever toward . (You can also cancel it immediately by pressing the **MENU** button.)

Movie frames and index playback images cannot be magnified.

Viewing Images in Sets of Nine (Index Playback)

1 Press the zoom lever toward .

- Up to nine images can be viewed at once in index playback.
- Use the ↑, ↓, ← or → button to change the image selection.



Switching between Sets of Nine Images

The jump bar will display if you press the zoom lever toward while in index playback and you can switch the display between sets of nine images.

- Use the ← or → button to move to the previous or next set of 9 images.
- Hold the **FUNC./SET** button down and press the ← or → button to jump to the first or last set.



To Return to Single Image Playback

Press the zoom lever toward .

Jumping to Images

When you have many images recorded onto a memory card, it is handy to use the four search keys below to jump over images to find the object of your search.

	Jump 10 Images	Jumps over 10 images at a time.
	Jump 100 Images	Jumps over 100 images at a time.
	Jump Shot Date	Jumps to the first image of each shooting date.
	Jump to Movie	Jumps to a movie.

1 **In single image playback mode, press the button.**

- The camera will switch to jump search mode.
- The screen sample will vary slightly according to the search key.



Location of image currently being displayed

Number of images matching search key

2 **Use the ↑ or ↓ button to select a search key and press the ← or → button.**

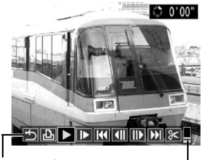
To Return to Single Image Playback
Press the **MENU** button.

Viewing Movies

> Movies cannot be played in the index playback mode.

1 **Display a movie and press (FUNC./SET).**

- Images with a (SET) movie icon are movies.



2 **Select ▶ (Play) and press (FUNC./SET).**

- The movie will pause if you press the **FUNC./SET** button during playback. It will resume when you press the button again.
- When playback ends, the movie stops at the last frame displayed. Press the **FUNC./SET** button to display the movie control panel.

Operating the Movie Control Panel

↩	Ends playback and returns to single image playback
🖶	Prints (An icon will display when a printer is connected. See the *Direct Print User Guide* for details.)
▶	Play
I▶	Slow Motion Playback (You can use the ◀ button to slow down or the ▶ button to speed up playback.)
I◀◀	Displays the first frame
◀II	Previous Frame (Rewinds if the **FUNC./SET** button is held down.)
II▶	Next Frame (Fast Forwards if the **FUNC./SET** button is held down.)
▶▶I	Displays the last frame
✂	Edit (Switches to movie editing mode.) (p. 76)

- Use the television's controls to adjust the volume when playing a movie on a TV set (p. 89).
- The sound cannot be played in slow motion playback.

Editing Movies

You can delete portions of recorded movies.

Movies 1 second or longer before editing can be edited in 1-second increments, but those that are protected or less than 1 second long cannot be edited.

1 Select (Edit) in the movie control panel and press (FUNC./SET).

- The movie editing panel and the movie editing bar will display.

Movie Editing Panel



Movie Editing Bar

2 Use the ▲ or ▼ button to select (Cut Beginning) or (Cut End) and the ◀ or ▶ button to specify the cut point ( ).

- To check a temporarily edited movie, select ▶ (Play) and press the **FUNC./SET** button.
- Selecting (Exit) cancels the edit and restores the movie control panel.

3 Select (Save) and press (FUNC./SET).

4 Select [New File] or [Overwrite] and press (FUNC./SET).

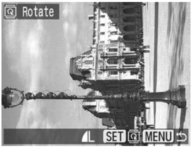


- [New File] saves the edited movie under a new file name. The pre-edit data is left unchanged.
  Note, if you press the **FUNC./SET** button while saving the movie, saving is cancelled.
- [Overwrite] saves the edited movie with its original name. The pre-edit data is lost.
- When there is not enough space left on the memory card, only [Overwrite] can be selected.

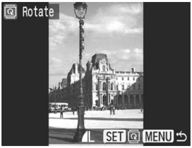
It may take approximately 3 minutes to save an edited movie. If the batteries run out partway through, edited movie clips cannot be saved. When editing movies, it is recommended to use new AA-size alkaline batteries or fully charged AA-size NiNH batteries (sold separately) or the AC Adapter Kit ACK600 (sold separately) (p. 111).

Rotating Images in the Display

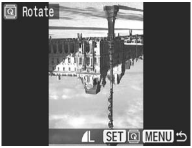
Images can be rotated clockwise 90° or 270° in the display.



Original



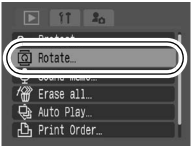
90°



270°

1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Use the ← or → button to select an image to rotate and press (FUNC./SET) to rotate it.

- Cycle through the 90°/270°/original orientations with each press of the **FUNC./SET** button.
- This also can be set in the index playback mode.

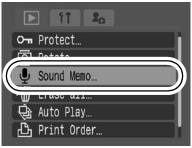
- Movies cannot be rotated.
- When images are downloaded to a computer, the orientation of images rotated by the camera will depend upon the software used to download the images.

Attaching Sound Memos to Images

In playback mode (including single image playback and index playback), you can attach sound memos (up to 60 seconds) to an image. The sound data is saved in the WAVE format.

1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Use the ← or → button to select an image to which to attach a sound memo and press (FUNC./SET).

- The sound memo control panel will display.

3 Select (Record) and press (FUNC./SET).

- The elapsed time and the remaining time display.
- Pressing the **FUNC./SET** button pauses the recording. Pressing it again resumes recording.
- Up to 60 seconds of recordings can be added to any one image.



Sound Memo Panel

Elapsed Time/ Remaining Time

Volume (Adjust it with the ↑ or ↓ button)

Sound Memo Panel

	Exit
	Record
	Pause
	Play
	Erase Select [Erase] in the confirmation screen and press the **FUNC./SET** button.

- You cannot attach sound memos to movies.
- Sound memos for protected images cannot be erased.

Automated Playback (Auto Play)

Use this feature to automatically play back all of the images in the memory card. The LCD monitor displays each image for approximately 3 seconds.

1 **(Play) Menu ▶ .**

See Menus and Settings (p. 23).



2 **Press .**

- During automated playback, the following functions are possible:
  - Pausing/resuming the Auto Play: Press the **FUNC./SET** button
  - Fast forwarding/rewinding: Press the ← or → button (hold down the button to switch between images more rapidly)
  - Stopping the Auto Play: Press the **MENU** button

Protecting Images

You can protect important images and movies from accidental erasure.

1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Select an image to protect and press .

- Pressing the **FUNC./SET** button again cancels the setting.
- You can also protect images in the index playback mode.



Protection Icon

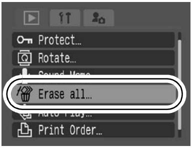
Playback/Erasing

Erasing All Images

- Note that erased images cannot be recovered. Exercise adequate caution before erasing an image.
- Protected images cannot be erased with this function.

1 **(Play) Menu ▶ .**

See Menus and Settings (p. 23).



2 **Select [OK] and press (FUNC./SET).**

- To exit instead of erasing, select [Cancel].

Please format the memory card when you want to erase not only image data but also all the data contained on the memory card (p. 21).

Print Settings/Transfer Settings

Setting the DPOF Print Settings

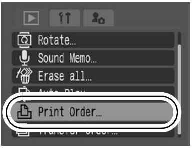
You can select images on a memory card for printing and specify the number of print copies in advance using the camera. This is extremely convenient for printing on a direct print compatible printer, or for sending the images to a photo developing service that supports DPOF.

The ⚠ icon may display for a memory card with print settings set by a different DPOF-compliant camera. These settings will be overwritten by those set by your camera.

Single Images

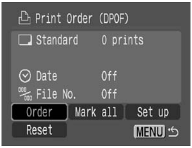
1 **▶ (Play) Menu ▶ 🖨.**

See Menus and Settings (p. 23).



2 **Select [Order] and press FUNC./SET.**

- Selecting [Reset] cancels all print settings.



Print Settings/Transfer Settings

3 Select images for printing.

- Selection methods differ for the Print Type settings (p. 85).
  - (Standard)/ (Both)
    Select an image, press the **FUNC./SET** button and use the ↑ or ↓ button to select the number of print copies (up to 99).

Number of Print Copies



  - (**Index**)
    Select an image and press the **FUNC./SET** button to select or deselect it.

Index Print Selection

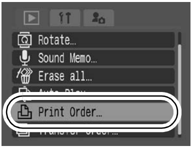


- You can also select images in the index playback mode.

All the Images on a Memory Card

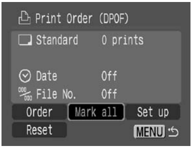
1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Select [Mark all] and press (FUNC. SET).

- Selecting [Reset] cancels all print settings.
- One copy of every image will be set to print.



3 Select [OK] and press (FUNC. SET).

- The output of some printers or photo developing services may not reflect the specified print settings.
- Print settings cannot be set for movies.

- Images are printed in order from oldest to newest by the shooting date.
- A maximum of 998 images can be selected.
- When [Print Type] is set to [Both], the number of copies can be set. When it is set to [Index], the number of copies cannot be set (only one copy will be printed).
- Do not set the date in the DPOF print settings when printing images that have had the date embedded with the [Date Stamp] function. This may cause the date to be printed twice.

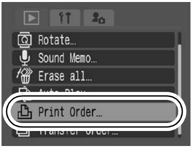
Setting the Print Style

Set the print style after selecting the image to print. The following print settings can be selected.

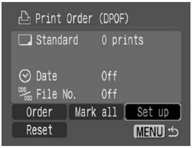
Print Type	**Standard**	Prints one image per page.
	Index	Prints the selected images together at a reduced size in an index format.
	Both	Prints the images in both the standard and index formats.
Date		Adds the date to the print.
File No.		Adds the file number to the print.

1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Select [Set up] and press (FUNC./SET).



3 Select [Print Type], [Date] or [File No.] and then specify the settings.

- The Date and File No. settings change according to the Print Type as follows.
  - Index
    [Date] and [File No.] cannot be set to [On] at the same time.
  - Standard or Both
    [Date] and [File No.] can be set to [On] at the same time, however, the printable information may vary between printers.
- Embedded dates in (Postcard Date Imprint mode) (p. 34) print out even when [Date] is set to [Off].
- Dates print in the style specified in the [Date/Time] menu (p. 26, *Basic Guide* p. 4).

Setting the DPOF Transfer Settings

You can use the camera to specify settings for images before downloading to a computer. Refer to the *Software Starter Guide* for instructions on how to transfer images to your computer.
The settings used on the camera comply with the Digital Print Order Format (DPOF) standards.

The ⚠ icon may display for a memory card with transfer settings set by a different DPOF-compliant camera. These settings will be overwritten by those set by your camera.

Single Images

1 (Play) Menu ▶ .

See Menus and Settings (p. 23).



2 Select [Order] and press (FUNC./SET).

- Selecting [Reset] cancels all transfer order settings.



3 Select an image to transfer and press (FUNC./SET).

- Pressing the **FUNC./SET** button again deselects the setting.
- You can also select images in the index playback mode.

Transfer Selection



All the Images on a Memory Card

1 **(Play) Menu ▶ .**

See Menus and Settings (p. 23).



2 **Select [Mark all] and press .**

- Selecting [Reset] cancels all transfer order settings.



3 **Select [OK] and press .**

- Images are transferred in order from oldest to newest by the shooting date.
- A maximum of 998 images can be selected.

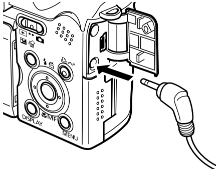
Viewing Images on a TV set

You can use a video-compatible television as a monitor to shoot or play back images when it is connected to the camera with the supplied AV Cable.

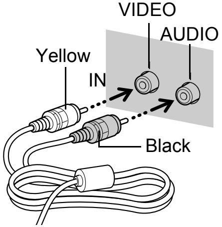
1 **Turn off the Camera and the TV.**

2 **Connect the AV cable to the camera's A/V OUT terminal.**

- Open the terminal cover by slipping a fingernail under the left edge and plug the AV cable in all the way.



3 **Plug the other ends of the AV cable to the VIDEO IN and AUDIO IN jacks on the TV.**



4 **Turn on the TV and switch it to Video mode.**

5 **Turn on the camera.**

The video output signal can be switched (NTSC or PAL) to accommodate different regional standards (p. 27). The default setting varies between regions.

- NTSC: Japan, U.S.A., Canada, Taiwan and others
- PAL: Europe, Asia (excluding Taiwan), Oceania and others

If the video system is set incorrectly, the camera output may not display properly.

Customizing the Camera (My Camera Settings)

My Camera allows you to customize the start-up image and start-up, operation, self-timer and shutter sounds. You can change and register these settings, enabling you to customize the camera to suit your own tastes.

Changing My Camera Settings

1 **(My Camera) Menu ▶ Menu Item.**

See Menus and Settings (p. 23).



2 **Select the contents you wish to set.**

- Select [Theme] to set all to the same settings.



Registering My Camera Settings

Images recorded onto the memory card and newly recorded sounds can be added as My Camera settings to the and menu items. You can also use the supplied software to upload your computer's images and sounds to the camera.

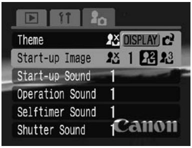
A computer is required to restore the My Camera settings to the defaults. Use the supplied software (ZoomBrowser EX/ ImageBrowser) to restore the default settings to the camera.

1 **Set the mode switch to (playback) ▶ (My Camera) Menu ▶ Menu item to register.**

See Menus and Settings (p. 23).



2 **Select or and press DISPLAY.**



3 Select an image or record a sound.

- **Start-up Image**
  Select the image you wish to register and press the **FUNC./SET** button.



- **Start-up, Operation, Self-timer and Shutter Sounds**
  Select (Record) and press the **FUNC./SET** button. After recording, select (Register) and press the **FUNC./SET** button.



  - Recording will automatically stop when the recording time elapses.
  - To play it, select (Play).
  - To exit instead of registering, press (Exit).

4 Select [OK] and press FUNC./SET.

- To cancel registering, select [Cancel].



- The following cannot be registered as My Camera settings.
  - Movies
  - Sounds recorded with the sound memo function (p. 79)
- The prior setting is erased when a new My Camera setting is added.

See the supplied *Software Starter Guide* for more information on creating and adding to the My Camera data.

Troubleshooting

Camera

Camera will not operate.

Power is not turned on.	● Press the power button (*Basic Guide* p. 5).
Memory card slot cover or battery cover is open.	● Confirm that the memory card slot cover or battery cover is securely closed (*Basic Guide* p. 1).
Batteries are loaded in the wrong direction.	● Reload the batteries in the correct direction (*Basic Guide* p. 1).
Batteries are not the right type.	● Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (*Basic Guide* p. 1).
Insufficient battery voltage (“Change the batteries” message displays).	● Replace the camera batteries with 4 unused or fully charged batteries (*Basic Guide* p. 1). ● Use the AC Adapter Kit ACK600 (sold separately) (p. 111).
Poor contact between camera and battery terminals.	● Wipe the battery terminals with a clean dry cloth. ● Reload the batteries several times.

Sounds come from the camera interior.

The camera’s horizontal/ vertical orientation was changed.	● The camera’s orientation mechanism is operating. There is no malfunction.

When the power is turned on

“Card locked!” message appears.

The SD memory card’s write protect tab is set to “Write protect”.	● When recording to, erasing from or formatting the memory card, slide the tab upward (p. 107).

The Date/Time menu appears.

The built-in rechargeable lithium battery charge is low.	● Recharge the built-in lithium battery immediately (*Basic Guide* p. 4).

LCD monitor

The display darkens.

The image in the LCD monitor will darken in strong sunlight or bright light.	● This does not constitute a malfunction and has no effect on images that have been shot.

Display flickers.

Display flickers when shot under fluorescent lighting.	● This is not a camera malfunction (flickering recorded in movies, but not in still images).

A bar of light (red, purple) appears on the LCD monitor.

Subject is too bright.	● This is a normal occurrence in devices containing CCDs and does not constitute a malfunction. This bar of light will not be recorded when shooting still photos, but it will be recorded when shooting movies.

appears.

A slow shutter speed has likely been selected because of insufficient lighting.	● Raise the ISO speed (p. 66) or set the flash to any setting other than (flash off), or secure the camera to something, such as a tripod (p. 17).

appears.

This displays when using a memory card that has print settings or transfer settings set by other DPOF-compliant cameras.	● These settings will be overwritten by those set by your camera (p. 83).

Noise displays./Subject's movements are irregular.

Camera automatically lightened the image displayed on the LCD monitor to make it easier to see when shooting in a dark area (p. 15).	● There is no effect on the recorded image.

Shooting

Camera will not record.

Mode switch is set to ▶ (playback).	● Set the mode switch to (shooting) (*Basic Guide* p. 5).
Flash is charging.	● The indicator will light orange when it is charged. You can then press the shutter button (p. 20).
Memory card is full.	● Insert a new memory card (*Basic Guide* p. 1). ● If required, download the images to a computer and erase them from the memory card to make space.
Memory card is not formatted correctly.	● Format the memory card (p. 21). ● If reformatting does not work, the memory card logic circuits may be damaged. Consult the nearest Canon Customer Support Help Desk.
SD memory card is write protected.	● Slide the write protect tab of the SD memory card upward (p. 107).
LCD monitor is closed.	● When the shooting mode is , or , open the LCD monitor and shoot subject.

Troubleshooting

Image Seen in Viewfinder vs. Recorded Image	
Usually the recorded image contains more of the scene than is seen in the viewfinder.	● Confirm the actual image size with the LCD monitor. Use the LCD monitor when taking close-up shots (p. 15).

Image is blurred or out of focus.	
AF-assist Beam is set to [Off].	● In dark places where it is difficult for the camera to focus, the AF-assist Beam will emit to assist focusing. As the AF-assist Beam will not function when turned off, set it [On] to activate it (p. 24). Take care not to obstruct the AF-assist Beam with your hand when used.
The camera moves when the shutter button is pressed.	● Setting the self-timer to (2 seconds) delays the shutter release for 2 seconds after the shutter button is pressed and allows the camera to stop shaking, thus preventing a blurred image (p. 35). Even better results can be obtained by placing the camera on a stable surface or by using a tripod to shoot.
Subject is out of focal range.	● Shoot with the subject at the correct shooting distance (p. 118).
The subject is hard to focus on.	● Use the focus lock, AF lock or manual focus to shoot (p. 47).

Subject in recorded image is too dark.	
Insufficient light for shooting.	● Set the flash to (Flash on) (*Basic Guide* p. 9).
Subject is dark in contrast to the background.	● Set the exposure compensation to a positive (+) setting (p. 54). ● Use AE lock or use the spot metering function (p. 49, 53).

Subject is too far away for flash to reach.	● Shoot within correct shooting distance of the subject when using the built-in flash (p. 119). ● Raise the ISO sensitivity and then shoot (p. 66).
Subject in recorded image is too bright.	
Subject is too close, making the flash too strong.	● Shoot within correct shooting distance of the subject when using the built-in flash (p. 119).
Subject is bright in contrast to the background.	● Set the exposure compensation to a negative (–) setting (p. 54). ● Use AE lock or use the spot metering function (p. 49, 53).
Too much light is shining directly into the camera, or is being reflected off the subject.	● Change the shooting angle.
Flash is set to on.	● Set the flash to (Flash off) (*Basic Guide* p. 9).
Image flashes white. Image contains noise.	
ISO speed is too high.	● Higher ISO speeds increase image noise. To take clean images, use as low an ISO speed as possible (p. 66). ● In , , , and modes in the SCN mode, the ISO speed increases and noise can appear.
White dots appear on the image.	
Light from the flash has reflected off dust particles or insects in the air. This is particularly noticeable when shooting using the wide angle or when you increase the aperture value in the aperture-priority AE mode.	● This is a phenomenon that occurs with digital cameras and does not constitute a malfunction.

Eyes appear red.

Light reflecting back from eyes can make them appear red when the flash is used in dark areas.	● Use the (red-eye reduction) mode (*Basic Guide* p. 9). For this mode to be effective, the subject must be looking right at the red-eye reduction lamp. Try asking them to look directly at the lamp. ● Even better results can be obtained by increasing the lighting in indoor settings or approaching closer to the subject. The shutter will not activate for approximately 1 second after the red-eye reduction lamp fires in order to improve the effect.

Continuous shooting slows down.

The memory card's performance has dropped.	● To enhance the continuous shooting performance, you are recommended to format the memory card in the camera after you save all its images to your computer (p. 21).

Recording images to memory card takes a long time.

Memory card was formatted in another device.	● Use a memory card formatted in your camera (p. 21).

Lens will not retract.

Memory card slot cover or battery cover was opened with power on.	● First close the memory card slot cover or battery cover and then turn the power off (*Basic Guide* p. 1).

Shooting Movies

The recording time may not display properly or filming may stop unexpectedly.	
The following types of memory cards are used. - Slow recording cards. - Cards formatted on a different camera or a computer. - Cards which have had images recorded and erased repeatedly.	● Although the recording time may not display properly during shooting, the movie will be recorded correctly on the memory card. Recording time will display properly if you format the memory card in this camera (excluding slow recording memory cards) (p. 21).

"!" displays frequently in the LCD monitor.	
If free space in the camera's built-in memory becomes too scarce, the "!" symbol will display on the LCD monitor in red and the camera will automatically cease filming shortly thereafter.	● Try the following procedures. - Reformat the memory card before filming (p. 21) - Lower the resolution or frame rate (p. 30) - Use a high-speed memory card (SDC-512MSH, etc.)

Zoom does not operate.	
Zoom lever was pressed while shooting in movie mode.	● Operate the zoom before shooting in movie mode (*Basic Guide* p. 8). Note the digital zoom is available while shooting, but only in Standard movie mode.

Playback

Cannot play back.

You attempted to play back images shot with another camera or images edited with a computer.	● Computer images that cannot be played back will play back if they are added to the camera using the supplied software program ZoomBrowser EX or ImageBrowser. See *ZoomBrowser EX/ ImageBrowser Software User Guide* (PDF).
File name was changed with a computer or file location was changed.	● Set the file name or location on the file format/structure of the camera. (Refer to the *Software Starter Guide* for details).

Movies cannot be edited.

Some movies shot with another camera cannot be edited.

Movies do not play back correctly.

Movies recorded with high resolutions and frame rates may momentarily stop playing if played on slow reading memory cards.

You may experience frame dropping and audio breakup when playing back a movie on a computer with insufficient system resources.

Movies recorded at the (Fast Frame Rate) setting and with the video signal set to the PAL format, may play back with a frame rate lower than the recorded one when output to a TV or video. You can play every frame by using the slow motion playback.	● To check the images at the original frame rate, you are recommended to play the movie back on the camera's LCD monitor or on a computer.

Reading images from memory card is slow.

Memory card was formatted in another device.	● Use a memory card formatted in your camera (p. 21).

Battery

Batteries consumed quickly.	
Batteries are not the right type.	● Use only unused AA-size alkaline batteries or Canon AA-size NiMH batteries (*Basic Guide* p. 1).
Battery capacity drops due to low ambient temperatures.	● If shooting in a cold location, warm the batteries such as by placing them in your pocket before using them.
Battery terminals are dirty.	● Wipe the terminals well with a dry cloth before use. ● Reload the batteries several times.
If using Canon AA-size NiMH batteries	
As the batteries have not been used for over a year, their recharging capacity has decreased.	● Their charging performance should return to normal after fully recharging and fully depleting them over several times.
Battery life has been exceeded.	● Replace all 4 batteries with new ones.

TV monitor output

Image not showing on TV monitor.	
Incorrect video system setting.	● Set the video system to the appropriate setting, NTSC or PAL, for your TV (p. 27).
Shooting in Stitch Assist mode.	● The output will not appear on a TV in Stitch Assist mode. Shoot in a different shooting mode (*Basic Guide* p. 7).

List of Messages

The following messages may appear on the LCD monitor during shooting or playback. Please refer to the *Direct Print User Guide* for the messages that display during a printer connection.

Busy...

Image is being recorded to, or read from, memory card. The playback mode is starting up.

No memory card

You turned on the camera without a memory card installed.

Card locked!

The SD memory card is write-protected.

Cannot record!

You attempted to shoot an image without a memory card installed, or attempted to attach a sound memo to a movie.

Memory card error

Memory card has experienced an anomaly.

Memory card full

Memory card is full of images and no more can be recorded or saved. Or no more image settings or sound memos can be recorded.

Naming error!

The image could not be created because there is an image with the same name as the directory that the camera is attempting to create, or the highest possible file number has already been reached. In the Set up menu, set [File No. Reset] to [On]. Save all the images you wish to retain onto a computer, then reformat the memory card. Please note that formatting will erase all the existing images and other data.

Change the batteries

Battery charge is insufficient to operate the camera. Replace all 4 batteries immediately with unused AA-size alkaline batteries or fully charged Canon AA-size NiMH batteries.

No image

No images recorded on memory card.

Image too large

You attempted to play back an image larger than 4992 x 3328 pixels or with a large data size.

Incompatible JPEG format

You attempted to play back an incompatible JPEG image.

Corrupted Data

You attempted to play back an image with corrupted data.

RAW

You attempted to play back a RAW image.

Unidentified Image

You attempted to play back an image that was recorded in a special data type (proprietary data type used by the camera of another manufacturer, etc.) or a movie clip recorded by another camera.

Cannot magnify!

You attempted to magnify an image recorded in a different camera or data type, an image edited with a computer, or a movie.

Cannot rotate

You attempted to rotate an image recorded in a different camera or data type, an image edited with a computer, or a movie.

Incompatible WAVE format.

A sound memo cannot be added to this image since the data type of the existing sound memo is incorrect.

Cannot register this image!

You attempted to register an image recorded in a different camera or a movie as a start-up image.

Protected!

You attempted to erase or edit a protected image, movie or sound memo.

Too many marks

Too many images have been marked with print settings or transfer settings. Cannot process any more.

Cannot complete!

Could not save the print or transfer settings.

Unselectable image

You attempted to set the print settings for a non-JPEG image.

Exx

(xx: number) Camera malfunction. Turn the power off and then back on, then shoot or play back. A problem exists if the error code reappears. Note the number and contact your Canon Customer Support Help Desk. If an error code displays directly after taking a picture, the shot may not have been recorded. Check image in playback mode.

Appendix

Battery Handling

Battery Charge

The following icon and message will display.

▭ /The power lamp is blinking green.
Battery charge is low. If using the camera for an extended period, replace the batteries as soon as possible.

Change the batteries

Batteries are fully depleted and the camera can no longer operate. Replace the batteries immediately.

Battery Handling Precautions

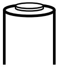
- **This camera uses AA-size alkaline batteries or Canon AA-size NiMH batteries (sold separately).**
  While it is possible to use AA-size nickel-cadmium batteries, performance is unreliable and their use is not recommended.
- **Since the performance of alkaline batteries may differ according to brand, the operating time of the batteries you purchase may not be as long as the batteries that came with the camera.**
- **When using the camera under low temperature conditions or over long periods, you are recommend to use of Canon AA-size NiMH batteries (sold separately).**
  Camera operating time may shorten at low temperatures when alkaline batteries are used. Also due to their specifications, alkaline batteries may expire faster than NiMH batteries.
- **Never mix unused and partially used batteries.**
  The partially used batteries may leak.
- **Do not install the batteries with their terminals (⊕ and ⊖) reversed.**
- **Do not mix batteries of different types or from different manufacturers.**

- **Before installing the batteries, wipe the battery terminals well with a dry cloth.**
  If the battery terminals are soiled with oil from one's skin or other dirt, the number of recordable images may be considerably diminished, or reduced usage time.
- **At low temperatures, battery performance may be reduced and the low battery icon ( ) may appear earlier than usual.**
  Under these conditions, restore the battery performance by warming it in a pocket immediately before use.
- **Do not put the batteries into a pocket together with metallic items such as a key ring.**
  The batteries may be short circuiting.
- **When not using the camera for long periods, remove the batteries from the camera and store them separately.**
  If the batteries are left inside the camera, the camera may become damaged from battery leakage.

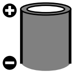
⚠ WARNING

Never use damaged batteries or batteries whose outer seal is completely or partially missing or peeled off, as there is risk that such batteries may leak, overheat, or burst. Always check the seals on store-bought batteries before loading them, as some batteries may come with defective seals. Do not use batteries with defective seals.

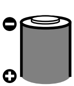
Never use batteries that look like this.



Batteries with all or part of the seal (electrical insulation sheath) peeled off.



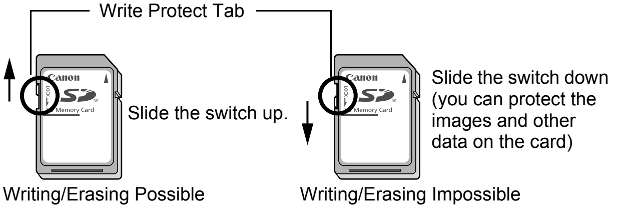
The positive electrode (plus terminal) is flat.



The negative terminal is correctly formed (protruding from the metal base), but the seal does not extend up over the edge of the metal base.

Handling the Memory Card

Write Protect Tab



Cautions When Handling

- **Memory cards are high-precision electronic devices. Do not bend them, apply force to them, or subject them to shocks or vibration.**
- **Do not attempt to disassemble or alter the memory card.**
- **Do not allow dirt, water or foreign objects to contact the terminals on the back of the card. Do not touch the terminals with your hands or metal objects.**
- **Do not peel away the original label on the memory card or cover it with another label or sticker.**
- **When writing on the memory card, do not use a pencil or ball-point pen. Only use a soft point pen (e.g. felt-tip pen).**
- **Do not use or store memory cards in the following locations.**
  - Locations subject to dust or sand
  - Locations subject to high humidity and high temperatures
- **Since some or all of the data recorded on the memory card may be corrupted or erased by electrical noise, static electricity or card malfunction, making a backup copy of important data is recommended.**

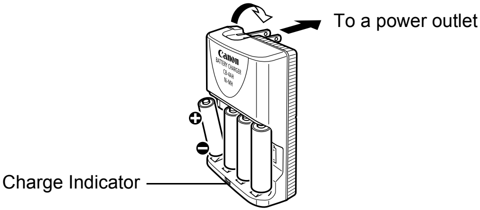
Formatting

- **Please note that formatting (initializing) an memory card erases all data, including protected images.**
- **You are recommended to use memory cards that have been formatted in your camera.**
  - The card supplied with the camera may be used without further formatting.
  - When the camera is malfunctioning, a corrupted memory card might be the cause. Reformatting the memory card may solve the problem.
  - When a non-Canon brand memory card is malfunctioning, reformatting it may solve the problem.
  - Memory cards formatted in other cameras, computers, or peripheral devices may not operate correctly in this camera. When that happens, reformat the memory card with this camera.
- **If formatting in the camera does not work properly, turn the camera off and re-insert the memory card. Then turn the camera back on and format again.**

Using the Power Kits (Sold Separately)

Using Rechargeable Batteries (Battery and Charger Kit CBK4-200)

This kit includes a battery charger and four rechargeable AA-size NiMH (nickel metal hydride) batteries. Charge batteries as shown below.



The charge indicator blinks while charging, then remains lit when charging is finished.

- This charger can be used only to charge Canon AA-size NiMH batteries NB-2AH. Please do not attempt to charge NB-2AH batteries in any other type of charger.
- Do not mix batteries with different purchase dates or different charge states. When recharging batteries, always recharge all 4 of them at the same time.
- Do not attempt to recharge fully charged batteries, as doing so may reduce or impair battery performance. Also, do not charge batteries for more than 24 consecutive hours.
- Do not recharge batteries in enclosed areas that tend to retain heat.
- Do not recharge the batteries until the LCD monitor displays the “Change the batteries” message. Repeatedly recharging batteries before they become fully depleted may cause batteries to lose capacity.

- Wipe the battery terminals well with a dry cloth in the following situations, as the terminals may be soiled with oil from one's skin or other dirt:
  - If the battery usage time has considerably diminished
  - If the number of recordable images has considerably diminished
  - When charging the batteries (insert and remove the batteries two or three times before charging)
  - When charging completes in a space of a few minutes (the battery charger indicator remains lit)
- You may not be able to fully charge the batteries due to their specifications right after purchase or after long periods of nonuse. If this happens, after fully charging them, use the batteries until their charge is fully depleted. After doing this several times, battery performance will be restored.
- If you store batteries for a long period of time (about 1 year), it is recommended that you fully deplete the batteries in the camera and to then store them at room temperature (0 to 30°C/32 to 90°F) in low humidity. Storing them in a fully charged condition can shorten their lifespan or degrade their performance.
  Again, if you do not use batteries for more than 1 year, fully charge them once a year and fully deplete in the camera before storing them.
- If the battery usage time has become considerably low despite wiping the terminals and charging them until the battery charger indicator remains lit, this may indicate that the batteries have reached the end of their lifespan. Replace them with new batteries. If you are purchasing new batteries, look for Canon AA-size NiMH batteries.
- Leaving batteries in the camera or charger may result in damage from battery leakage. When not in use, remove the batteries from the camera or charger and store them in a cool, dry location.

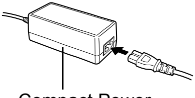
- It takes approximately 4 hours 10 minutes for the charger to fully recharge the batteries after they have been fully discharged (as determined by testing at Canon facilities). Charge batteries in an environment where the temperature is in the range of 0 to 35°C (32 to 95°F).
- The charging time varies according to the ambient temperature and to the battery charge state.
- The battery charger may emit noise while charging. This is not a malfunction.
- Battery/Charger Kit CBK100 can also be used. Use Canon AA-size NiMH batteries NB-1AH with the charger included in the CBK100 kit.

Using the AC Adapter Kit ACK600

It is best to power the camera with AC Adapter Kit ACK600 (sold separately) when you are using it for long periods of time or connecting it to a computer.

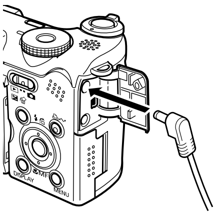
Turn the camera power off before connecting or disconnecting the AC adapter.

1 Connect the power cord to the compact power adapter first and then plug the other end into the power outlet.



Compact Power Adapter CA-PS500

2 Open the terminal cover and attach the cord to the DC IN terminal.



Appendix

Using the Lenses (Sold Separately)

The camera supports use of the separately sold Wide Converter WC-DC58N and Tele-converter TC-DC58N. In order to attach these lenses, you also need to use the separately sold Conversion Lens Adapter LA-DC58F.

- When attaching the wide converter or tele-converter, be sure to screw it on securely. If they come loose, they may fall from the lens adapter, posing risk of injury from shattered glass.
- Never look into the sun or into strong light through the viewfinder when attaching the wide converter or tele-converter, as this can result in blindness or impairment of vision.

- If you use the flash when shooting with these attachments, the outer area of the recorded image (especially lower right corner) will come out relatively dark.
- When using the tele-converter, please set the focal length to the telephoto end. At other zoom settings, the image will appear as if its corners have been cut off.
- When using the wide converter, please set the camera to the wide angle end.
- If you use the viewfinder for shooting, a portion of the view will be blocked by these attachments. Please use the LCD monitor.

■Wide Converter WC-DC58N

Use this converter for taking wide-angle shots. The wide converter changes the focal length of the camera body’s lens by a factor of 0.7x (the thread diameter is 58 mm).

■Tele-converter TC-DC58N

This lens is used for taking telephoto shots. The lens changes the focal length of the camera body’s lens by a factor of 1.75x. (the thread diameter is 58 mm).

It is not possible to attach a lens hood or filter to the wide converter or tele-converter.

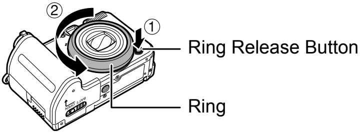
■Conversion Lens Adapter LA-DC58F

This is a lens adapter required for attaching the wide converter and tele-converter (58 mm thread diameter).

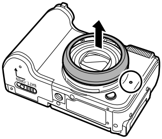
Attaching a Lens

1 Be sure that the camera is turned off.

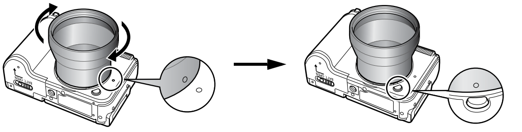
2 Press the ring release button and hold it down, and turn the ring in the direction of the arrow.



3 When the ○ mark on the camera and the ▢ mark on the ring are aligned, lift off the ring.

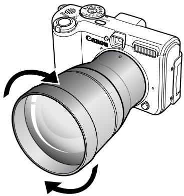


4 Align the ● mark on the conversion lens adapter with the ○ mark on the camera, and turn the adapter in the direction of the arrows as far as the ◠ mark on the camera.



- To remove the conversion lens adapter, turn the adapter in the opposite direction with holding down the ring release button.

5 Set the lens on the adapter, and turn it in the indicated direction to attach it securely.

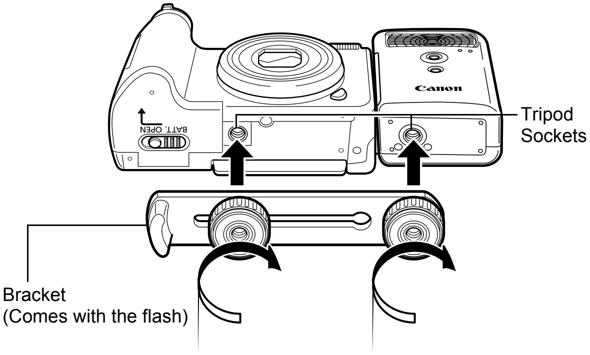


- Completely remove all dust and dirt from conversion lenses with a lens blower brush before use. The camera may focus on any dirt that remains.
- Be careful when handling the lenses since it is easy to get finger prints on them.
- Be careful not to drop the camera or adapter when removing the ring.
- When using these lens attachments, you should not shoot images in [stitch assist icon] mode. It will not be possible to use the PhotoStitch software from your computer to accurately stitch the images together.

Using an Externally Mounted Flash (Sold Separately)

High-Power Flash HF-DC1

This flash is used to supplement the camera's built-in flash when the subject is too far away for proper illumination. Use the following procedures to affix the camera and High-Power Flash to the supporting bracket.
Please read the instructions accompanying the flash along with this explanation.



- When shooting in **M** mode, the High-Power Flash will not fire.
- The flash charge time will lengthen as the battery charge gets weaker. Always set the power/mode switch to [OFF] when you finish using the flash.
- Be careful not to touch the flash window or sensor windows with your fingers while the flash is in use.
- The flash may fire if another flash is being used in close proximity.
- The High-Power Flash may not fire outdoors in daylight or when there are no reflective items.
- For continuous shooting, although the flash fires for the first shot, it does not fire for subsequent shots.

- Fasten the attachment screws securely so that they do not loosen. Failure to do so may lead to the dropping of the camera and flash resulting in damage to both.

- Before attaching the bracket to the flash, check that the lithium battery (CR123A or DL123) is installed.
- To illuminate the subjects properly, install the flash so that it is up against the side of the camera and parallel with the camera's front panel.
- A tripod can be used even when the flash is attached.

■Batteries

● Charge becomes Severely Limited

If the battery usage time has considerably diminished, wipe the battery terminals well with a dry cloth. The terminals may be dirty from fingerprints.

● Usage in Cold Temperatures (Less than 0°C/32°F)

Get a spare generic lithium battery (CR123A or DL123). You are recommended to place the spare battery in your pocket to warm it up before switching it for the battery in the flash.

● Non-Use over Extended Periods

Leaving batteries in the High-Power Flash could allow the battery fluid to leak, damaging the product. Remove the batteries from the High-Power Flash and store them in a cool, dry place.

Camera Care and Maintenance

Never use thinners, benzene, synthetic cleansers or water to clean the camera. These substances may distort or damage the equipment.

Camera Body

Gently wipe dirt off the camera body with a soft cloth or eyeglass lens wiper.

Lens

First use a lens blower brush to remove dust and dirt, then remove any remaining dirt by wiping the lens lightly with a soft cloth.

Never use synthetic cleansers on the camera body or lens. If dirt remains, contact the closest Canon Customer Support Help Desk as listed on the separate *Canon Customer Support* leaflet.

Viewfinder and LCD Monitor

Use a lens blower brush to remove dust and dirt. If necessary, gently wipe with a soft cloth or an eyeglass lens wiper to remove stubborn dirt.

Never rub or press strongly on the LCD monitor. These actions may damage it or lead to other problems.

Specifications

All data is based on Canon's standard testing methods. Subject to change without notice.

PowerShot A620/A610

(W): Max. wide angle (T): Max. telephoto

Camera Effective Pixels	:	PowerShot A620: Approx. 7.1 million PowerShot A610: Approx. 5.0 million
Image Sensor	:	PowerShot A620: 1/1.8-inch CCD (Total number of pixels: Approx. 7.4 million) PowerShot A610: 1/1.8-inch CCD (Total number of pixels: Approx. 5.3 million)
Lens	:	7.3 (W) – 29.2 (T) mm (35mm film equivalent: 35 (W) – 140 (T) mm) f/2.8 (W) – f/4.1 (T)
Digital Zoom	:	Approx. 4.0x (Up to approx. 16x in combination with the optical zoom)
Optical Viewfinder	:	Real-image zoom viewfinder
LCD Monitor	:	2.0-inch, low-temperature polycrystalline silicon TFT color LCD, approx. 115,000 pixels
AF System	:	TTL autofocus AF lock and Manual focus are available Focusing frame: 9-point (AiAF) / 1-point (AF) (1-point focusing frame: any position is available)
Shooting Distance (From the front of the lens)	:	Normal: 45 cm (18 in.) – infinity Macro: 1 – 45 cm (W)/25 – 45 cm (T) (0.4 – 18 in. (W)/9.8 – 18 in. (T)) Manual focus: 1 cm (0.4 in.) – infinity (W)/ 25 cm (9.8 in.) – infinity (T)
Shutter	:	Mechanical shutter + electronic shutter

Shutter Speeds	: 15 – 1/2500 sec. • The shutter speed varies according to the shooting mode. • Slow shutter speeds of 1.3 sec. or slower operate with noise reduction.
Metering System	: Evaluative, Center-weighted average or Spot (Center/AF Point)
Exposure Compensation	: ± 2.0 stops in 1/3-stop increments, Safety Shift is available
Sensitivity	: Auto*, ISO 50/100/200/400 equivalent * Camera automatically sets the optimal speed.
White Balance	: TTL auto, pre-set (available settings: Daylight, Cloudy, Tungsten, Fluorescent, Fluorescent H or Underwater) or custom
Built-in Flash	: Auto*, on*, off * Red-eye reduction is available. FE Lock, Slow synchro, 2nd-curtain flash and flash output settings are available.
Flash Range	: Normal: 45 cm – 4.2 m (18 in. – 14 ft.) (W), 45 cm – 3.0 m (18 in. – 10 ft.) (T) Macro: 25 cm – 45 cm (9.8 – 18 in.) (W/T) (When sensitivity is set to AUTO.)
Flash Exposure Compensation	: ±2.0 stops in 1/3-stop increments
Shooting Modes	: Auto Creative zone: Program, Shutter-speed priority, Aperture priority, Manual and Custom Image zone: Portrait, Landscape, Night scene, Special Scene[1], My Colors, Stitch assist and Movie[2] [1] Night Snapshot, Kids&Pets, Indoor, Foliage, Snow, Beach, Fireworks and Underwater. [2] Standard, Fast Frame Rate, Compact, My Colors.

Continuous Shooting	:	PowerShot A620: Approx. 1.9 shots/sec. (Large/Fine mode) PowerShot A610: Approx. 2.4 shots/sec. (Large/Fine mode)
Self-timer	:	Activates shutter after an approx. 10-sec./ approx. 2-sec. delay, Custom Timer
PC-controlled Shooting	:	Available (USB connection only. Exclusive software program is include in the camera kit.) (PowerShot A620 only)
Recording Media	:	SD memory card/MultiMediaCard • This camera has been tested with memory cards through 2 GB. All memory card functions cannot be guaranteed.
File Format	:	Design rule for camera file system and DPOF compliant
Data Type (Still images)	:	Exif 2.2 (JPEG)*1
(Movies)	:	AVI (Image data: Motion JPEG; Audio data: WAVE (monaural))
Compression	:	Superfine, Fine, Normal
Number of Recording Pixels (Still images)	:	PowerShot A620: Large: 3072 x 2304 pixels Medium 1: 2592 x 1944 pixels Medium 2: 2048 x 1536 pixels Medium 3: 1600 x 1200 pixels Small: 640 x 480 pixels Postcard Date Imprint Mode: 1600 x 1200 pixels PowerShot A610: Large: 2592 x 1944 pixels Medium 1: 2048 x 1536 pixels Medium 2: 1600 x 1200 pixels Small: 640 x 480 pixels Postcard Date Imprint Mode: 1600 x 1200 pixels

(Movies)	:	Standard, My Colors: 640 x 480 pixels (30 frames/sec., 15 frames/sec.) 320 x 240 pixels (30 frames/sec., 15 frames/sec.) Recording can continue until the memory card is full* (can record up to a maximum of 1 GB at one time). Fast Frame Rate: (can record for 1 min.) 320 x 240 pixels (60 frames/sec.) Compact: (can record for 3 min.) 160 x 120 pixels (15 frames/sec.) * Using super high-speed memory cards (SDC-512MSH recommended).
Playback Modes	:	Single (histogram displayable), Index (9 thumbnail images), Magnified (approx. 10x (max.) in LCD monitor, advance or reverse through magnified images possible), Jump (jumps to every tenth or handredth image, to the first image of those sharing a certain shooting date or to movies. In index playback mode, it displays 9 images at once.), Sound memos (up to 60 sec.), Auto Play or Movie (edit/slow motion play back possible).
Direct Print	:	*PictBridge* compliant, and *Canon Direct Print* and *Bubble Jet Direct* compatible
My Camera Settings	:	Start-up image, start-up sound, operation sound, self-timer sound, and shutter sound.
Interface	:	USB 2.0 Hi-Speed (mini-B), PTP (Picture Transfer Protocol) Audio/Video output (NTSC or PAL selectable, monaural audio)
Power Source	:	AA-size alkaline batteries (included in camera kit) AA-size rechargeable NiMH batteries NB4-200 (sold separately) AC Adapter Kit ACK600 (sold separately)
Operating Temperature	:	0 – 40 °C (32 – 104 °F)

Operating Humidity	:	10 – 90%
Dimensions (excluding protrusions)	:	104.8 x 66.0 x 49.1 mm (4.13 x 2.60 x 1.93 in.)
Weight (camera body only)	:	Approx. 235 g (8.29 oz.)

*[1] This digital camera supports Exif 2.2 (also called “Exif Print”). Exif Print is a standard for enhancing the communication between digital cameras and printers. By connecting to an Exif Print-compliant printer, the camera’s image data at the time of shooting is used and optimized, yielding extremely high quality prints.

Battery Capacity

	Number of Images Shot		Playback Time
	LCD Monitor ON (Based on the CIPA standard)	LCD Monitor Off	
AA-size Alkaline Batteries (included with the camera)	Approx. 350 images	Approx. 1200 images	Approx. 16 hours 40 minutes
AA-size NiMH Batteries (NB-2AH (fully charged))	Approx. 500 images	Approx. 1500 images	Approx. 16 hours 40 minutes

- The actual figures will vary according to the shooting conditions and settings.
- Movie data is excluded.
- At low temperatures, the battery performance may diminish and the low battery icon may appear very rapidly. In these circumstances, the performance can be improved by warming the battery in a pocket before use.

Test Conditions

Shooting: Normal temperature (23°C ±2°C/73°F ±3.6°F), normal relative humidity (50% ±20%), alternating wide angle end and telephoto end shots at 30 second intervals with the flash fired once every two shots and the camera power turned off after every tenth shot. Power is left off for a sufficient amount of time*, then the power is turned back on and the testing procedure is repeated.

・A Canon-brand memory card is used.

* Until the battery returns to normal temperature

Playback: Normal temperature (23°C ±2°C/73°F ±3.6°F), normal relative humidity (50% ±20%), continuous playback at 3 seconds per image.

See *Battery Handling Precautions* (p. 105).

Memory Cards and Estimated Capacities

■PowerShot A620

☐: Card included with the camera

Resolution	Compression	SDC-32M	SDC-128M	SDC-512MSH
L (Large) 3072 x 2304 pixels	Superfine	9	40	156*
	Fine	15	64	251
	Normal	31	134	520
M1 (Middle 1) 2592 x 1944 pixels	Superfine	11	49	190
	Fine	20	87	339
	Normal	40	173	671
M2 (Middle 2) 2048 x 1536 pixels	Superfine	17	76	295
	Fine	32	136	529
	Normal	63	269	1041
M3 (Middle 3) 1600 x 1200 pixels	Superfine	28	121	471
	Fine	51	217	839
	Normal	97	411	1590
S (Small) 640 x 480 pixels	Superfine	109	460	1777
	Fine	168	711	2747
	Normal	265	1118	4317
(Postcard Date Imprint Mode) 1600 x 1200 pixels	Fine	51	217	839

- ▒ Capable of smooth continuous shooting (p. 32) (* Only available when card has been formatted with a low level format).
- This reflects standard shooting criteria established by Canon. Actual results may vary according to the subject and shooting conditions.

■PowerShot A610

☐: Card included with the camera

Resolution	Compression	SDC-16M	SDC-128M	SDC-512MSH
L (Large) 2592 x 1944 pixels	S	5	49	190
	◢	9	87	339
	▟	19	173	671
M1 (Middle 1) 2048 x 1536 pixels	S	8	76	295
	◢	15	136	529
	▟	30	269	1041
M2 (Middle 2) 1600 x 1200 pixels	S	13	121	471
	◢	24	217	839
	▟	46	411	1590
S (Small) 640 x 480 pixels	S	52	460	1777
	◢	80	711	2747
	▟	127	1118	4317
(Postcard Date Imprint Mode) 1600 x 1200 pixels	◢	24	217	839

- [shaded] Capable of smooth continuous shooting (p. 32).
- This reflects standard shooting criteria established by Canon. Actual results may vary according to the subject and shooting conditions.

Movie

	Resolution	Frame Rate	SDM-16M	SDC-32M	SDC-128M	SDC-512MSH
Standard	640 x 480 pixels	30	6 sec.	14 sec.	1 min. 4 sec.	4 min. 9 sec.
		15	14 sec.	30 sec.	2 min. 7 sec.	8 min. 14 sec.
My Colors	320 x 240 pixels	30	20 sec.	42 sec.	3 min. 1 sec.	11 min. 42 sec.
		15	40 sec.	1 min. 24 sec.	5 min. 55 sec.	22 min. 53 sec.
Fast Frame Rate	320 x 240 pixels	60	10 sec.	21 sec.	1 min. 32 sec.	5 min. 59 sec.
Compact	160x 120 pixels	15	1 min. 39 sec.	3 min. 26 sec.	14 min. 29 sec.	55 min. 57 sec.

* Maximum movie clip length at (Fast Frame Rate): 1 min., at (Compact): 3 min. The figures indicate the maximum continuous recording time.

Image Data Sizes (Estimated)

Resolution		Compression		
		Superfine	Fine	Normal
L	PowerShot A620 3072 x 2304 pixels	3045 KB	1897 KB	902 KB
	PowerShot A610 2592 x 1944 pixels	2053 KB	1395 KB	695 KB
M1	PowerShot A620 2592 x 1944 pixels	2503 KB	1395 KB	695 KB
	PowerShot A610 2048 x 1536 pixels	1602 KB	893 KB	445 KB
M2	PowerShot A620 2048 x 1536 pixels	1602 KB	893 KB	445 KB
	PowerShot A610 1600 x 1200 pixels	1002 KB	558 KB	278 KB
M3	PowerShot A620 1600 x 1200 pixels	1002 KB	558 KB	278 KB
Postcard	1600 x 1200 pixels	1002 KB	558 KB	278 KB
S	640 x 480 pixels	249 KB	150 KB	84 KB

	Resolution	Frame Rate	File size
Standard	640 640 x 480 pixels	30	1980 KB/sec.
		15	990 KB/sec.
My Colors	320 320 x 240 pixels	30	660 KB/sec.
		15	330 KB/sec.
Fast Frame Rate	320 320 x 240 pixels	60	1320 KB/sec.
Compact	160 160 x 120 pixels	15	120 KB/sec.

SD Memory Card

Interface	Compatible with SD memory card standards
Dimensions	32.0 x 24.0 x 2.1 mm (1.3 x 0.9 x 0.1 in.)
Weight	Approx. 2 g (0.07 oz.)

NiMH Battery NB-2AH

(Supplied with the separately sold NiMH Battery NB4-200 set or the Battery and Charger Kit CBK4-200)

Type	AA-size rechargeable nickel metal hydride battery
Nominal Voltage	1.2 V DC
Typical Capacity	2300 mAh (min.: 2150 mAh)
Cycle Life	Approx. 300 times
Operating Temperatures	0 – 35°C (32 – 95°F)
Dimensions	Diameter: 14.5 mm (0.6 in.) Length: 50 mm (2.0 in.)
Weight	Approx. 29 g (1.0 oz.)

Battery Charger CB-4AH/CB-4AHE

(Supplied with the separately sold Battery and Charger Kit CBK4-200)

Rated Input	100 – 240 V AC (50/60 Hz), 10 W
Rated Output	565 mA
Charging Time	Approx. 4 hours 50 min.
Operating Temperatures	0 – 35°C (32 – 95°F)
Dimensions	65.0 x 105.0 x 27.5 mm (2.6 x 4.1 x 1.1 in.)
Weight (body only)	CB-4AH: Approx. 95 g (3.4 oz.) CB-4AHE: Approx. 97 g (3.4 oz.)

Compact Power Adapter CA-PS500

(Included with the separately sold AC Adapter Kit ACK600)

Rated Input	100 – 240 V AC (50/ 60 Hz) 0.16 A (100 V) – 0.11 A (240 V)
Rated Output	4.3 V DC, 1.5 A
Operating Temperatures	0 – 40°C (32 – 104°F)
Dimensions	42.6 x 104.4 x 31.4 mm (1.7 x 4.1 x 1.2 in.)
Weight	Approx. 180 g (6.3 oz.) (excluding power cord)

Wide Converter WC-DC58N (Sold Separately)

Magnification	Approx. 0.7x (35mm film equivalent at max. wide angle: approx. 25 mm)
Focusing Range (from front of lens)	Approx. 20 cm (7.9 in.) – infinity (at wide angle end)*1
Thread Diameter	58 mm standard filter thread*2
Dimensions	Diameter: 94.5 mm (3.7 in.) Length: 54.9 mm (2.2 in.)
Weight	Approx. 275 g (9.7 oz.)

Tele-converter TC-DC58N (Sold Separately)

Magnification	Approx. 1.75x (35mm film equivalent at max. telephoto: approx. 245 mm)
Focusing Range (from front of lens)	Approx. 1.4 m (4.6 ft.) – infinity (at telephoto end)*1
Thread Diameter	58 mm standard filter thread*2
Dimensions	Diameter: 75 mm (3.0 in.) Length: 50 mm (2.0 in.)
Weight	Approx. 185 g (6.5 oz.)

*1 When mounted on PowerShot A620/A610

*2 Conversion Lens Adapter LA-DC58F is required when mounted on PowerShot A620/A610

Conversion Lens Adapter LA-DC58F (Sold Separately)

Thread Diameter	58 mm standard filter thread
Dimensions	Diameter: 62 mm (2.4 in.) Length: 46.1 mm (1.8 in.)
Weight	Approx. 17 g (0.60 oz.)

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FCC Notice
(Digital Camera, Model PC1145/PC1146)

Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions;

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The cable with the ferrite core provided with the digital camera must be used with this equipment in order to comply with Class B limits in Subpart B of Part 15 of the FCC rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Canon U.S.A. Inc.

One Canon Plaza, Lake Success, NY 11042, U.S.A.

Tel No. (516) 328-5600

Canadian Radio Interference Regulations
This Class B digital apparatus complies with Canadian ICES-003.

Réglementation canadienne sur les interférences radio
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Functions Available in Each Shooting Mode

The following chart shows the functions and settings available in each shooting mode.

In C mode, you can shoot using your saved settings (p. 69).

Function			AUTO	[Portrait]	[Landscape]	[Night Scene]	SCN[1]	[My Colors]	[Stitch Assist]	[Movie]	P	Tv	Av	M	Ref. Page
Resolution	Large	L	○*	○*	○*	○*	○*	○*	△*	–	○*	○*	○*	○*	p. 29, 30
	Medium 1	M1	○	○	○	○	○	○	△	–	○	○	○	○	
	Medium 2	M2	○	○	○	○	○	○	△	–	○	○	○	○	
	Medium 3 (PowerShot A620 only)	M3	○	○	○	○	○	○	△	–	○	○	○	○	
	Small	S	○	○	○	○	○	○	△	–	○	○	○	○	
	Postcard	[Postcard]	○	○	○	○	○	○	–	–	○	○	○	○	
	Movie	640 / 320 / 160	–	–	–	–	–	–	–	○[2]	–	–	–	–	
Compression	Super Fine	[Super Fine]	○	○	○	○	○	○	△	–	○	○	○	○	p. 30
	Fine	[Fine]	○*	○*	○*	○*	○*	○*	△*	–	○	○	○	○	
	Normal	[Normal]	○	○	○	○	○	○	△	–	○	○	○	○	
Frame Rate			–	–	–	–	–	–	–	○[2]	–	–	–	–	p. 30
Flash	Auto	[Auto]	○*	○*	○	○*	4)	○[3]	–	–	○	–	–	–	*Basic Guide* p. 9
	On	[On]	–	○	○	○		○	△	–	○	○	○	○	
	Off	[Off]	○	○	○*	○		○	△*	–	○*	○*	○*	○*	
Red-Eye Reduction		[Red-Eye]	○	○	○	○	○	○	△	–	○	○	○	○	*Basic Guide* p. 9
AF-assist Beam			○	○	○	○	○	○	△	○	○	○	○	○	p. 24
Slow Synchro		On	–	–	○	○	5)	○	△	–	○	–	○	–	p. 24
		Off	○	○	–	–		○*	○*	–	○*	○	○*	○	
Flash Adjust		On	○	○	○	○	○	○	○	–	○	○*	○*	–	p. 66
		Off	–	–	–	–	–	–	–	–	–	○	○	○	
+/– (Flash)		[+/–]	–	○	○	○	–	○	△	–	○	○	○	–	p. 67
Flash Output		[+/–]	–	–	–	–	–	–	–	–	–	○	○	○	p. 67
Flash Sync	1st-curtain		○	○	○	○	○	○*	○	–	○*	○*	○*	○*	p. 68
	2nd-curtain		–	–	–	–	–	○	–	–	○	○	○	○	
Drive Mode	Single Shot	[Single Shot]	○*	○*	○*	○*	○*	○*	△*	○*	○*	○*	○*	○*	–
	Continuous Shooting	[Continuous]	–	○	○	○	○	–	–	–	○	○	○	○	p. 32
	10 sec., 2 sec. Self Timer	[10] [2]	○	○	○	○	○	○	△	○	○	○	○	○	p. 35
	Custom	[C]	○	○	○	○	○	–	–	–	○	○	○	○	p. 35
AF Frame[6]	AiAF		○*	○*	○*	○*	○	○	○	○	○*	○*	○*	○*	p. 45
	Center		–	○	○	○	○*	○	–	–	○	○	○	○	
	FlexiZone		–	–	–	–	–	–	–	–	○	○	○	○	p. 46
AF Lock		MF	–	○	○	○	○	○	–	○	○	○	○	○	p. 47
Manual Focus		MF	–	○	○	○	○	○	–	○	○	○	○	○	p. 48

Function			AUTO	[Portrait]	[Landscape]	[Night Snapshot]	SCN[1]	[icon]	[icon]	[Movie]	P	Tv	Av	M	Ref. Page
Macro Mode		[icon]	○	○	–	○	○	○	○	○	○	○	○	○	*Basic Guide* p. 10
Digital Zoom		On	○	○	○	○	○	–	–	7)	○	○	○	○	p. 31
		Off	○*	○*	○*	○*	○*	○	–		○*	○*	○*	○*	
Safety Shift			–	–	–	–	–	–	–	–	–	○	○	–	p. 43
Exposure Compensation		[icon]	–	○	○	○	○	○[8]	△	–	○	○	○	–	p. 54
Metering System	Evaluative	[icon]	–[9]	–[9]	–[9]	–[9]	○	○*	–[9]	–[9]	○*	○*	○*	○*	p. 52
	Center Weighted Avg.	[icon]	–	–	–	–	–	○	–	–	○	○	○	○	
	Spot	[icon]	–	–	–	–	–	○	–	–	○	○	○	○	
AE Lock/ FE Lock Shooting		[icon]	–	–	–	–	–	○	–	–	○	○	○	–	p. 49, 51
White Balance[10]		[icon]	–[11]	○	○	○	–[9]	○	△	○	○	○	○	○	p. 55
Photo Effect		[icon]	–	○	○	○	–[10]	–	△	○[12]	○	○	○	○	p. 58
ISO Speed		[icon]	–[9]	–[9]	–[9]	–[9]	–[9]	–[9]	–[9]	–[9]	○	○	○	○[13]	p. 66
Reverse Disp.			○	○	○	○	○	○	–	○	○	○	○	○	p. 25
Auto Rotate	[icon]	On	○*	○*	○*	○*	○*	○*	△*	–	○*	○*	○*	○*	p. 70
		Off	○	○	○	○	○	○	△	–	○	○	○	○	
Date Stamp		[icon]	○	○	○	○	○	○	–	–	○	○	○	○	p. 34
Grid Lines			○	○	○	○	○	○	–	○	○	○	○	○	p. 25

* Default setting ○ Setting available △ Setting can only be selected for the first image.

- (Shaded Area): Setting is retained even when the camera power is shut off.
- With the exception of the [Date/Time], [Language] and [Video System] settings, all the other menu settings and changes made with the camera buttons can be reset to the default values in a single operation (p. 28).

(1)The following functions cannot be set in the [icon] mode.
- The [Auto] and [On] setting for the flash
- Red-eye reduction function
- AF-assist beam
- AF frame selection
- Macro mode
- AF lock
- Manual focus

The following functions cannot be set in the [icon] mode.
- Macro mode
- AF frame selection

(2)The resolutions and frame rates for the [icon] (Movie) mode are as follows.

		[icon] [icon]	[icon]	[icon]
Resolution	[640]	○*	–	–
	[320]	○	○	–
	[160]	–	–	○
Frame Rate	[60]	–	○	–
	[30]	○*	–	–
	[15]	○	–	○

(3)The default flash setting will be [Flash off] in the [icon] and [icon] modes.
(4)The default flash setting will be [Auto] (red-eye reduction) in the [icon], [icon], [icon], [icon], [icon], [icon] modes, and [Flash off] in the [icon] and [icon] modes.
(5)Settings will be fixed to [On] in the [icon] mode, and [Off] in all other modes.
(6)When using the digital zoom, it will be set to [Center].
(7)Default setting is [On] for the [icon] and [Off] for the [icon], [icon], [icon] modes. Can be set during shooting in the [icon] mode.
(8)Exposure compensation not available in the [icon] and [icon] modes.
(9)Automatically set by the camera.
(10)This cannot be set when the Photo Effect is set to the [icon] and [icon] modes.
(11)The white balance will be set to [Auto].
(12)The Photo Effect cannot be set in the [icon] mode.
(13)ISO [Auto] cannot be selected.